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ASTOR, LENOX AND
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Walter Hopwood. 1899.

MARY JANE;

OR,

SPIRITUALISM CHEMICALLY EXPLAINED

WITH

SPIRIT DRAWINGS.

ALSO

ESSAYS BY,

AND

IDEAS (PERHAPS ERRONEOUS)

OF,

"A CHILD AT SCHOOL."

LONDON:
PRINTED BY JOHN KING & CO., 63, QUEEN STREET, CHEAPSIDE, E.C.

1863.

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CONTENTS.

	PAGE
PREFACE	v
LIGHT, INSTINCT AND INTELLECT	5
WIESBADEN TO MILAN	59
THE DEAD MAN WHO TALKED	63
AUSTRIAN POLICE	65

ERRATA.

Page 297, last line but one, instead of "*in nubibus*," read, "*in nudis*."

Page 315, last line but two, instead of "*for you to walk on*," read, "*for you to draw on.*"

Page 317, last line but four, instead of "*you have broken the charm*," read, "*you have broken the chain.*"

Page 321, line 13, instead of "*dumping*," read "*damping.*"

Page 346, line 9, instead of "*three demons*," read "*three dominoes.*"

[illegible]	—
MAN AND WOMAN	144
CREATION	152
INFINITY, &c.	155
WORDS	160
THE HINDOOS	175
AMERICA	198
ON THE ORIGIN OF THE JEWISH RELIGION	233
BELIEF AND MARY JANE	289
PLATES	357

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CONTENTS.

	PAGE
PREFACE	v
LIGHT, INSTINCT AND INTELLECT	5
WIESBADEN TO MILAN	59
THE DEAD MAN WHO TALKED	63
AUSTRIAN POLICE	65
REASONS FOR WRITING	75
ELEMENTS OF MAN	79
SPONTANEOUS GENERATION	91
SINGULAR PHENOMENON	97
ON THE PRINCIPLES OF HUMAN INTELLECT	103
LIFE	110
VESTED INTERESTS	114
ASTRONOMY	119
PRIVATE LIFE	125
TIME IS MONEY	128
RELIGION	130
MAN AND WOMAN	144
CREATION	152
INFINITY, &c.	155
WORDS	160
THE HINDOOS	175
AMERICA	198
ON THE ORIGIN OF THE JEWISH RELIGION	233
BELIEF AND MARY JANE	289
PLATES	357

PREFACE.

When I want to part with a horse, I prefer selling him by auction, with all faults. If a friend buys him there, he ought not to blame me if he finds him very stiff the day after a run. With a book, however, it is different; and, that my brothers and sisters of the human race may not blame me for having allowed them to spend their money in buying, or their time in reading, this book, I state at once that it is materialistic, and that it has been carefully reviewed by one of the most amiable and orthodox Clergymen in England.

Materialism is a frightful word, something like Radicalism, Chartism, or Republicanism in politics; yet, somehow, whenever a party wants to get into place, or a candidate to get into Parliament, he or they carefully lock up all absolutist ideas, and are profuse in pledges of Reform—becoming, in fact, for the time, Radicals, Chartists, and Republicans, with the most positive pledges that they will carry out those principles as far as the welfare of the nation allows—under which

saving clause, as soon as they are firmly in the saddle, they tighten the curb, and ride the horse after their own ideas.

So with Materialism; to me it seems an abstract philosophical question, whether or no a quality can exist apart from an element—that is all; whether or no you can divide the power of attraction from the magnet, and say here is the magnet, and here, apart from it, is the power of attraction—or can you divide a mince-pie from its taste, so that you can taste the pie without eating any of it? Can music exist, and be heard, without any instrument or material cause creating the sound? Can nothing at all be of any colour or weight?

I do not know if I am right in interfering with critics and reviewers; and, so to say, taking the dissecting knife out of their literary surgical hands. Still, I hope they will excuse me in this instance, as I am only publishing the most unfavourable view of the work.

My reverend friend commences by the following paragraph, to a very intimate friend of mine, who sent him the proof sheets, with the request that he would review the work carefully.

"As I see an old sixpenny stamp on it, I shall "put a similar one on again. The author having

"addressed his work to you, is the sole cause of "my allowing its perusal to be worth sixpence."

I bow to the estimation.

"Not but that, if style is separated from matter, "there is something pointed, and clever, and "humorous about it."

To this personal compliment, I make a profound salaam.

"But, as you must be sensible, it is very un- "equal; and altogether a strange *mélange*."

I confirm this remark most emphatically.

"There is no new light thrown upon any sub- "ject."

Again I bow.

"Though I think him quite right about the "Americans."

Well but, my dear sir, a good and correct view of the American question, alone, is worth Six-pence.

"The Materialism of his views offers nothing "new."

I am very glad to hear it, for I was afraid I had gone too far.

"Materialism is only consistent with Atheism."

I deny that *in toto*—it is a calumny. In the words, "Thou great First Cause, least under-stood," the question whether that Cause has any-

thing material in connection with it, has nothing to do with Atheism—which, if I understand the word rightly, consists in the denial of any Cause whatever.

"Other views which he propounds would also "lead to a still more dangerous, if possible, and "self-contradictory conclusion, viz., the indiffer- "ence and irresponsibility of human nature."

Granted, my dear sir; but if you were a judge, and a man was being tried for murder, and evidence was tendered that the man was insane, would you reject that evidence?

"I will say nothing about the attack upon "Moses; for, to tell you the truth, neither the "tone of it, nor its wildly conjectural criticism, "render it worthy of reply."

I have not attacked Moses—I have drawn conclusions. It is as reasonable to say that a Geologist attacks the Bible when he says that a stratum of coal was formed 100,000 years ago. But I must relate something about this "attack upon Moses." I wrote the article before Dr. Colenso's work was published—but when the public had notice of its being forthcoming; and I called on a valued, very learned, and reverend friend; and, stating what there was at home for dinner, he highly approved of it, and we started

together for my house. On the road, I said,—"Well, Doctor, I have been writing an Essay on the Origin of the Jewish Religion. Now, you are an Oxford man. Turn over in your mind how the subject ought to be treated; and, in the half-hour before dinner, I will read it to you." I commenced reading, and very soon the doctor's risible muscles got into very violent action; during which, I several times heard the word "capital." I leave the Oxford men to settle the question of propriety with their brother.

My valued reviewer, having then given his opinion on my book, favoured me with his own religious views; as I said before, he is one of the most orthodox of English clergymen.

"But of this I am perfectly clear—that if my "faith in the Gospel be a Lie, then that Lie is "worth more than all the Truth that is, ever was, "or ever will be, in the world besides. Please "forward this to your friend, to whom, pray God, "it may be of use."

All I can say, is—that if that sentiment were mine, I should never allow even a hint of it to escape from me, either by word or writing. However, it is a liberal sentiment; for the man who can justify a "contingent" lie in his own belief, must

be a pattern of toleration of the belief of other persons.

As to the history of Mary Jane, it was written subsequently to the review of my reverend friend, so I have not had the advantage of his comments. However, the facts are all true, whatever my deductions from them may be; and I have taken pains to show scientific men how they may investigate the subject—in order that a question which has tormented the world, by its obscurity, for some thousands of years, may be turned by science to the benefit of mankind.

I must also remark that the whole of the work was written and printed, and ready for the binder, before I had the slightest knowledge on the subject of Spiritualism or Odylic vapour, as my original article on belief proves; but, if my present views on this subject are correct, all that I have written on Light, Instinct, Intellect, Spontaneous Generation, the Principles of Human Intellect, and other analogous subjects, would require to be remodelled; as the consideration of every subject touching or relating to the production, nature, and progressive changes of organic life, of all descriptions, and of instinct and progressive intellect, must be influenced, or, rather must take a new track, by the indubitable

certainty that there issues from the human body, totally unconsciously, a vapour, combining power, thought, and the power of expressing that thought,—and, by the strongest chain of circumstantial reasoning, analogous vapours exude from every particle of organic creation ; nor do I think that this description comprehends the whole of this vast subject.

TO THOSE WHO ARE OF MY MIND.

I like an argument—I like to take up a subject and follow it to the end, however startling the end may be—I like the argument with a friend; or by myself—I like it conducted on the principles of a trial by jury. Counsel speak on both sides. The evidence is often not positive. The prisoner is guilty or not, according to a chain of circumstances. But the jury must give a verdict as though the circumstances were positive, instead of inferred. It must be—guilty, or not guilty.

So in philosophical arguments, we cannot get on a step without taking probabilities for evidences.

In this Pamphlet I have allowed myself the utmost latitude, and, as the "Times" of to-day says, "I don't mind confessing it here, because nobody knows me."

THE AUTHOR.

London, 1858.

LIGHT,
INSTINCT, AND INTELLECT.

March 30, 1858.

THOMAS, ——ESQ.

I shall have all the loose sheets of memoranda printed.

Not exactly for my own use, but for this reason:—if we wish to talk over these things, it is, or may be, necessary for me to make such long explanations before coming to any debateable ground, that we may hardly arrive there at all.

Whereas, by putting in print a lot of memoranda made at various times, after I have been reading some work on chemistry, light, heat, &c., your mind will be in some degree prepared with some reflections on the subject.

Photography has opened a new volume in nature. We knew before that a ray of light was divisible into three qualities—red, blue, and yellow—but we did not know that a ring of light is almost like a bundle of sticks, or like Wiljalba Frickell's Hat, you get out of it all sorts of things —red, blue, yellow—chemical rays with light, and chemical rays without light.

And these rays affect the material world, so that on the Collodion plate, only where they struck, there is silver, and experiment proves that the effect is electrical.

It was very natural that I should buy any works on light, and I became possessed of one of as visionary a nature as any of the ideas you will hereafter find in my memoranda.

Wanting to get my ideas a little clearer, I called in A, but he (like all practical chemists) stifled my arguments with the question—How can you prove it?

However, at his tea-table, I got a great addition to my philosophy; viz.: I was telling B that everything in the world relating to mankind resolved itself into two things—time and money. Money represents food, clothes, home, books, horses, carriages, theatres, &c. Time represents the means of enjoying them. "So," said I, "there's nothing else;" "and brains," said C. "True for you," said I; "a man may have £10,000 a year, and his time all his own, but if he have not brains he cannot profit by the other two."

So we will note down the fact, that time, money, and brains, are the ingredients of enjoyment, if you please.

However, A advised me to go to D, and D said, "read my books". So I read them—on light, heat, electricity, chemical action, &c.

But, at the last few pages, D, like other authors, says—"I can tell you the effects, but not the causes;" and adds, "see E's work."

So then to E's work, which goes mainly to prove that the imponderables are all one. The imponderables mean those things that cannot be weighed—say light, heat, electricity, magnetism, and chemical affinity. All these are convertible

into one another; the sun's rays produce heat, so does chemical affinity, and electricity produces light.

The ponderables are everything else; to make it clear, you can weigh a candle, but you cannot weigh the light which is contained in that candle.

Many philosophers say that the light is not a thing, but an effect; because, when you have burnt the candle, you will find that the weight of the hydrogen and carbon, which have combined with oxygen, are exactly the weight of the candle, and so the light is nothing.

But that I deny. I say the light is a substance as much as the tallow, only not subject to the laws of gravitation, therefore imponderable.

Gravitation is the tendency of a body to the centre of the earth, from any side. Newton saw the apple fall, it tended to the earth with a certain force, measurable by scales; the apple was amenable to the force of gravity. Suppose a tree with apples that did not fall, that is, not amenable to the force of gravity, that stayed mid-air wherever you put them, would you say that the apple was nothing, because, as it would not fall, you could not weigh it ?

So again, gravity, and magnetism, and electricity, appear to represent one another ; a piece of iron weighs what we call a pound; that is, its tendency to the earth is counterbalanced by a pound weight. Suspend it by a magnet, and the tendency towards the earth is nothing; the earth pulls one way, the magnet the other. I conclude they pull by the same agency.

If I took all these things into consideration, according to the books of all the learned philosophers and professors of all ages, I should not be able to satisfy my mind by building up any theory; for their authority is so great and so contradictory, that it is as though you asked your way in the street; and one person said go to the right, and another to the left. There you are—and if you go on at all, you must please yourself.

So, very great authorities say that space is empty—that is, that between the suns, and planets, and comets—there is nothing; others, equally great, say there is ether—all full of ether.

Now, I opine, it is all full of light, that is, light in all its qualities of heat, electricity, &c.

I am obliged to make a kind of a "*Coup d'Etat*" with these things, else I should never be able to give you a view of Creation at all; I should be like the man stopping between two roads: therefore, as the Russians say, a bad plan followed out is better than no plan at all—I give you mine for better or worse.

The whole of the universe then, the stars, planets, comets, and space, are divided into two categories.

The Imponderables, light, heat, electricity, &c., which are not subject to the laws of gravity, *i. e.*, you cannot weigh them, you may condense them, as when you condense the rays of the sun by a glass, or when you concentrate a heavy charge of electricity; but condensed or expanded, they do not seek the earth, and, therefore, do not affect the weight of the body they are temporally united

with. Suppose a circular room, papered with photographic sensitive paper, and in the centre of the room, two jets, one of water, and the other of hydro-oxygen light; the water, ponderable, falls to the bottom, the light, imponderable, is projected, or pressed equally against every side of the room, and unites chemically with the photographic paper. If light were amenable to the laws of weight, it would fall to the bottom of the room.

The Ponderables, gases, metals, earths, &c., which are inert matter, when not acted on by the Imponderables, but which are subject to the laws of gravity.

It is essential you should bear this in mind, as simplifying the universe with its endless space, and countless myriads of suns, planets, comets, nebulæ, &c., &c., till the mind becomes tired of conjecture; but if you merely take a sample as though you were on the sea shore, of a grain of sand, and say, this is sand, the countless myriads of sand are all the same thing, you will comprehend it better.

So with light and the imponderables, let us dismiss from our minds the sun, and hosts of suns and comets, and take a candle.

The theory is exactly the same—it is only a question, as in the grain of sand, and the sea shore —a case of quantity.

If I cannot prove this tolerably satisfactorily by a candle, I can by the electric light by which photographs are taken by night. This light possesses the same polarizing and reducing influence

on silver, as the sunshine does, and therefore, adopting the principle that similar results prove the agency of similar causes, we simplify the matter.

So, for instance, all motion throughout the universe proceeds from the extrication of light, heat, and electricity from matter, with which it was combined. You travel in your carriage, or you go by rail—you are moved by precisely the same chemical agency, your horse is fed with hay and corn—vegetables—the boiler of the railway engine is fed with coals, which are only baked vegetables—the air disintegrates the heat (or electricity) from the coals in the one case—and the air also acting on the horse's lungs, disintegrates the heat and electricity by which he pulls.

The fact of the stars giving out light is evidence of their being compounded of the same materials by which we produce light.

So that we may reasonably conclude, that we have a clear idea of the whole universe—namely, the solution of imponderable matter, from ponderable matter; and its recombination with ponderable matter.

The earth is said to have been a burning mass at first—either a piece of the sun, or like a condensed comet; and in partial proof of it, it is tolerably accurately calculated, that at 200 miles depth, it is all liquid and red hot. The results of its cooling down to the state it is in now, are the production of vegetable and animal life.

The causes of the shapes, and suitability of purpose to end, are matters of religion; there-

fore, I do not discuss them, at present, but one thing may be safely deduced, which is, that the ponderable materials of the whole universe being the same, and the imponderables also the same; and that through all space, the same action is carried on, and that the utmost stretch of our imagination cannot conceive a beginning from nothing, we may reasonably conclude that from time without date, countless myriads of suns and worlds have gone through the phases which our earth is going through, but that the agencies, matter and electricity, ponderables and imponderables, being the same, the products have been chemically, and I may say intellectually, similar, although the shapes have varied without end.

Reading the early pages of the Geology of the Earth, we find that the same agencies which are at work now, were acting then. First, the earth being a burning mass, gave out so much heat that the water was all steam; by and bye it parted with so much heat, that the steam condensed into water. Then came, by the action of light, vegetables. The vegetables were the first organised bodies. Now, chemically speaking, vegetables are all the same thing, namely, reservoirs of light and heat. Let us pause here, to observe the difference between organised and unorganised matter. You take a piece of iron, and expose it to damp, it unites with oxygen, and the action ceases; there is no more iron than when you began; but you plant a seed which weighs the tenth of an ounce, and it goes on extracting carbon from the atmosphere, and hydrogen from

the water, and imbibing light from the sun, and by and bye you have a thing weighing ten tons;—ten tons of what? why ten tons of matter, which, on its reunion with oxygen, will give out the imponderables, light, heat, &c., which are not only the motive power of the universe, but the indispensable necessaries for animal life.

Without the vegetable there is no animal—without the vegetable there is no life—no seeing, hearing, smelling, tasting, thinking, or self-existing.

What, then, is this powerful agency we call vegetable? It is light, and heat, and electricity from the sun, concentrated in matter from the earth, and when that matter reunites with oxygen, the imponderables are evolved, or set at liberty. If the mode of evolvement is fire, light and heat are evolved; if the mode of evolvement is by the agency of an animal body, it takes the form of heat and electricity, and produces life, instinct, and intelligence.

We have now done with the vegetable, and will proceed to another phase of Creation—animal life.

Animal life, chemically speaking, is liberating the imponderables, light, heat, electricity, from the matter with which they were combined in the vegetable, and appropriating them to, and using them for, specific purposes.

In one respect animal resembles vegetable life; that is, in commencing in a point invisible except to the highest power microscopes, and *per se* adding to its bulk.

Animal life is the effect of a stream of electricity; it is the same, yet changes from second to second, as in the locomotive, you are travelling by steam, and an engine, but the steam that propelled you the last twenty yards is not that which is propelling you now. Look at a river, turn away from it ten minutes—still a river—but not the same water. So the imponderables, the light, and heat, and electricity, which enabled you to see, think, and act yesterday, are not the same by which you are obtaining those results to-day.

As I said before, the matter of the plan of animal or vegetable life, the suitability of purpose to end, the continuation of reproduction, are matters appertaining to religion. We may, however, safely conclude that similar agencies are followed by similar results, and therefore, throughout the countless worlds we see, animated life, instinct, and intelligence are developed in the same gradual phases, and with the same suitability to climate, and arrive at the same intellectual powers as we have evidence has taken place, and does take place, on this earth. Nay more, it is probable that human life, as regards intellectuality *versus* instinct, is yet in its infancy; for the progress of the last 100 years in the knowledge of the arcana of nature, and of the appliances of chemical forces to human wants, has been more than in the 10,000 years (if the Chinese Chronology be correct) which preceded them.

As an hour is a sample of eternity, as a point is a sample of endless space, so an animated being,

chemically speaking, is a sample of the two agencies which fill space, *i. e.*, matter and electricity.

The remainder of this pamphlet consists of detached memoranda, as they occurred to my mind in considering any particular subject. I shall have them printed, because very often the same fact is more clear to the mind when viewed from one point than from another.

Things are of three sorts:—

1. Things without life, simple substances, metals, gases.

2. Electricity and its modifications:—Heat, light, gravity, attraction, chemical affinity, &c.

3. Organized bodies, compounded of the foregoing two, the type of which is absorption, adaptation to their own substances, ejection of matter no longer suitable, conservative action against exterior influences, propagation.

All communication between organized bodies and the world exterior to them is electrical; seeing, hearing, tasting, smelling, feeling, are all elcetrical.

Thinking is the same—the sagacity of the elephant, the cunning of the fox, the thoughts of a man, are all the same.

The organized bodies which have existed on the earth for perhaps millions of years, have been the chemical compositions which, at each period, the temperature and atmosphere permitted; nor even then has identity occurred. Similar zones produced different vegetables and animals.

Pain and pleasure have formed the harness and reins which have guided the animal in the course laid down by his Creator. The tiger eats the deer as innocently as the deer eats the grass. To absorb or provide for the existence of the body constituted pleasure—to injure it, pain.

The qualities of organized bodies are a cohesion to self, in contradistinction to the attraction to the earth, an assimilation of substances—a creation of electricity by those substances, by which electricity those substances are rendered part of the body so secreting them, and follow the identity and the qualities of that body; as, for instance, feed a colt and a child on milk, barley, and potatoes, for a year, each still retains its identity. An organized body exists (as that body) by electrical action; that stopped, either by want of supply of substances to convert into electricity, or by anything which stops the electrical action, its self-existence ceases and it becomes an inorganic body, and is subject to chemical influences which before had no power over it.

Electricity acting in matter not containing carbon, cannot produce organic bodies.

A difference between organic and non-organic bodies is this, organic bodies acquire—non-organic bodies do not acquire.

Sulphuric acid and zinc have an electric action only as long as uncombined, but a grain of wheat retains its electric action, and then acquires matter analogous to itself up to a certain point, when the electric action ceases.

A certain plant has a cup with gluten in it, and closes over the insects that get in it.

Marine animals have this also.

The amount of intelligence thus chemically displayed is in proportion to the wants and requirements in the inferior animals.

The bees store honey against the winter.

The squirrel lays up nuts.

The spider spins his web.

Where no chemical intelligence is required none takes place—I mean as regards hoarding—the butterfly does not hoard, nor do the ruminating animals.

The intelligence of man is as perfectly chemical as that of the inferior animals, it is only developed more according to circumstances, but whatever extent of development it has hitherto or may hereafter acquire, the whole of it is summed into two categories:—

1. Absorption to self.
2. Chemical or electrical agency which causes it.

Pain and pleasure seem, except for self-preservation, to form no part of the calculation of the universe. Absorption, producing chemical electricity and affinity, stands pre-eminent.

Animals absorb vegetables, and in their turn are absorbed by other animals.

Man, in his most uncivilized state, absorbs vegetables and animals, which he catches as the spider, or as the lion.

Man, in his most civilized state does the same thing, only the vegetables and animals are represented by £ s. d.

The appetite in the spider and lion are satiated when the *quantum sufficit* for chemical action is absorbed, because the absorbing desire is cloyed with more; but in the case of man, the feeling of absorption goes on as strongly when he has a million, as only £10, because each £ represents something to absorb.

Electricity is the only thing that acts with a will; the needle will point to the pole; the magnet will attract iron.

It does not seem that electricity and carbon confine themselves to any particular nature or shape of animal or vegetable; animals and vegetables are produced according to their power of existing in the medium then existing on the globe.

Hydrogen is the source of life in this manner—becoming saturated with oxygen, it forms a solid, which combined with a certain quantity of heat becomes a liquid, and forms the vehicle for the solution of the carbon.

Without hydrogen, no life—see the sandy desert, where animal and vegetable cannot exist. There is sand, oxygen, and nitrogen, but no hydrogen.

The earth would be equally, or more filled with animal life, if there were no dry land, but the land would have no life without water. Hydrogen, therefore, is the basis of life.

Next comes the carbon. A solid *per se*, but as gas combined with oxygen.

The plant inhales this gas, exudes the oxygen, and solidifies the carbon, combining it with the

solidified hydrogen of the water, and that is wood and coals.

As regards light and heat, or imponderable bodies, say bodies not subject to the laws of gravitation, becoming solid when incorporated by chemical affinity to a body subject to the laws of gravitation, that may just as well be as other changes of gases to solids.

A square piece of iron at 200°, measures more than at zero; put it into water at 32, and the water measures more; if they weighed more, we should say heat is a body, but that does not follow, if heat is not considered under the laws of attraction.

LIFE.

Life is the progress from a liquid to a solid state; take an egg, all liquid—an old fowl, all or nearly solid.

So with vegetables, the newly formed seed is a liquid, it takes a solid form in a kind of sleep, till moisture and warmth again enable it to resume its liquid shape, and then goes on from the tender grass, almost a liquid, to the withered grass, or straw, a solid.

Perhaps there is no more regular series in the course of the existence of animated nature, than in the gradual diminution of liquidity.

The germ, 1 per cent. solid, 99 liquid.

The very old, 80 per cent. solid, 20 liquid.

Death is in progress then every hour, from the first germ of life. The being is liquid at first,

and may from first to last have the very best health, but the progress of solidification is going on, and ultimately causes death by want of fluidity.

Death in the same way takes place when any animal or plant is deprived of water.

This would correspond to the principle which states that an animal lives four or five times as long as the period it takes him to acquire his full development, for the development is but a process of solidification from the liquid germ to the muscular animal; then the process of solidification continues, and the means of transmission of the imponderables becomes more difficult, from the want of fluid media.

We see the outward senses of seeing, hearing, &c., become weaker, we feel the mental sense of memory become weaker, we find the pulse beats slower and slower, until the heart becomes too solidified and weak to propel the blood through the rigid veins.

Taken chemically, youth is plus hydrogen, minus carbon; and age plus carbon, minus hydrogen; the hydrogen, being in each case solidified as water.

The life of man will be therefore prolonged by the slower secretion of carbonacious and calcarious matter.

THEORY.

All that man eats produces electricity; man's life is but the action of creating and evolving electricity.

He works, and is tired; what has taken place? nothing but that electricity is evolved. He eats, and sleeps, and gets up ready to work again; what has he done? he has accumulated in his body a quantity of electricity.

He sees by it, hears by it, feels by it, and thinks by it.

THINKS BY IT.

The bee constructs her comb, the bird builds its nest, the beaver makes its house, all these are thought.

You say the man is higher in intellect. What does that man do, from the time he is born till laid in his grave?

He absorbs. The chemical feeling for absorption continues long after the quantity he possesses is more than he can enjoy; the absorption itself constitutes the gratification—the man cannot put in his stomach ten oxen a day, but he can put in his pocket the representation of ten oxen, and get up as eagerly the next day, to absorb ten more.

Ah! but reason, learning, justice, benevolence, religion, art, science,—all this comes from the same electrical principle of absorption.

A society, a model republic, is but the plan of a number of people to acquire more by agreeing to certain laws and rules, binding on all, than they could by acting separately.

Whenever the desire of absorption is extreme, (or call it profit,) or the amount to be so absorbed is very excessive, the electrical tendency of the animal man overcomes the minor tendencies.

Man, hungry, eats his fellow man.

The Americans, while the freest people in the world, will not give up their property in the labour of five million blacks.

ATTRACTION.

The earth attracts. Gravity is attraction; attraction is the tendency of a body to draw to itself other bodies.

Electricity is the source of attraction. A piece of iron becomes a magnet, when electricity is passed through a wire coiled round it.

Chemical affinity is attraction.

The same powers of attraction which exist in a substance in one state, say in iron, continues to exist in whatever mixture or solution the iron may be.

For organic bodies are required three things:

1. A germ of carbon, &c.

2. An internal electric essence, which never leaves it during life.

3. Heat, light, and substances whereon the body can exercise its power of absorption.

REPULSION.

An unorganized body attracts until it is saturated, and then the action ceases; but an organized body attracts, absorbs, assimilates by electricity, and repels or ejects the matter no longer calculated for its increase.

The tendency to absorb, or eject, in a new-born infant, is as much the (involuntary) effect of electricity, as the same is in a blade of glass, and in *both the same as in a magnet.*

The tendency goes on through life, and is owing to the chemical action of the constituents of the man, but civilisation has made a curious change in the matter.

In the natural state, man, like his prototype, the monkey, would simply absorb the substances the electric state of his stomach required, and then rest, as do graminivorous animals, or he might lay up a store, like the squirrel, for one season.

But in the civilized state, the absorbent action is unrestrained by the necessity of consumption, and continues even when that necessity no longer exists, because it is part of his chemical composition.

The whole of money getting, and hoarding, and all human institutions, are the chemical result of the attractive powers of the stomach for substances which it can assimilate to the body.

Prove it. Let the food of man be as equally comeatable as that of the buffalo on the vast plains of America, and so certain as to leave no fear of defalcation; the man would absorb as much as the chemical state of his stomach permitted, and then rest till the digestion of that permitted or demanded more. He could not eat any more than he could digest or assimilate. The attraction for food having ceased, he would only attend to the other propensities of his nature, on which I do not at present argue.

Organised life is the product of substances and sunshine; let us examine the theory. Stop the sunshine, and what results? chemical action ceases and heat ceases; liquids become solid.

In consequence of the sunshine the whole surface of the globe is forced into an intense chemical action, the evaporation of water produces clouds and rain, the surface of the earth exhibits intense chemical action, mountains are disintegrated by the chemical action of water combining with their salts; vegetation and animalisation are produced.

Now take away the sun's rays—turn the most fertile and chemically acting part of the earth away from him, what have we? See the frozen elephant in Siberia, which may have been there 5,000 years or 50,000. Without heat; no chemical action.

ON LIFE AND DEATH.

Animals usually die in four or five times the time they take to reach their full growth and development, and the sooner that full growth and development are reached, the shorter lived the animal.

Why does the animal living like the wild horse or wild buffalo, on his natural food, die?

As for man, not one in ten thousand lives to his natural term, I mean to the term to which he would continue to exist under the most favourable circumstances of diet, &c.

Supposing life to consist in the elimination of

electricity, tested by the conversion of a given quantity of oxygen into heat, and that we divide life into five periods, two of increase, one stationary, and two of decrease; then the animal has begun to die, the moment it has passed the stationary period. Its death is as certainly fixed as though condemned to die without reprieve.

In the books I have read on the subject of the duration of life, the authors agree on the duration of life by precedent, and not by cause of death.

They quote authentic instances of men up to the longest life, 154 years.

They then give very numerous instances of men attaining 100 years. Upon this they reason that the man having attained his full growth at twenty, lives five times that: that a horse having attained his full growth at seven, lives usually (accidents excepted) to thirty-five years of age. My opinion is, that life under the circumstances of uninterrupted health, will continue until the tissues of the body, which are continually imbibing an excess of solid matter, become incapable of transmitting the fluids,—whether these fluids be the arterial, the venous, or the nervous—and therefore, it is quite possible to conceive such a state of atmosphere or of food that the human body would retain its humidity or liquidity and consequent power of circulating fluids up to much longer periods.

The only other solution of the problem is, that there is a germ of Life situated in the Cerebral and Spinal system which, after having attained a certain force, decreases gradually until it does not

furnish sufficient electrical power for the continuance of life, and that during that diminution of force the Body contracts, the fluids become less in proportion to the solids, until at last the propelling power is unable to keep up the circulation.

What is an animal?—say a man, reduced to his chemical elements. Take him, burn him, and distil him, you will have oxygen, hydrogen, nitrogen, gases and water, which is but solidified gas.

After that you will have a little sulphur and phosphorus and Iodine.

Lastly you will have a metal slab of white metal, which is the calcium of the bones, with sodium and alluminum.

If you could separate the pure carbon from its combination with oxygen, you might have a diamond.

These are the chemical elements. In youth the Gases and Liquids predominate—in age the Metal.

There are two principles at work in the universe, the ponderables and imponderables.

The imponderables have the power of attraction and therefore have no gravity.

They may be concentrated as light, heat, by a lens, or electricity in a jar; but not being subject to the laws of attraction they weigh nothing.

The ponderables are all simple elements and their compounds.

The imponderables are light, heat, electricity.

The imponderables enter instantly into connection with the ponderables, causing all the effects we see in nature.

The connection is either chemical, as heat in melting ice; or organizing, as in animal or vegetable life. They exist latent, as heat in coals, until chemical action reproduces them; they then radiate, as heat when coals burn, or light from gas, and not being subject to gravity unite, towards the earth, with bodies they impinge on, or radiate into space.

The sun is a body in a state of decomposition. Its ponderables, probably the same as of our earth, keep as close to it as their state of expansion from heat will allow.

Its imponderables fly off into space.

Those that impinge on our planet produce all the effects we are conscious of.

The imponderables are so intimately connected with the ponderables that it is difficult, if not impossible, to imagine any substance without them. Iron will burn and give light in oxygen. Hydrogen, which in water becomes steam, gives out light and heat when combining with oxygen.

Hydrogen is the lightest substance we are acquainted with, containing also the greatest proportion of imponderable substances.

Carbon is the only substance which is a *sine qua non* in animated life.

The plan would appear to commence with the imponderables, according to the nature of the substance acted on. Crystals always form first where any electric conductor, such as wire or thread are.

The plan, design, shape, &c., are entirely according to the substance acted on. But what-

ever be the plan, design, &c., it is not self-supporting; it is nothing but the continuance of a chemical action, requiring a constant supply of imponderables to continue its existence. A polar bear lives for six months by converting his accumulated fat into light and heat; that exhausted, he eats or dies.

The difference between organized and unorganized chemical action is this: in unorganized chemical action no provision is made for continuance or aggregation. A piece of iron put into water goes on combining with oxygen till it is all oxide of iron, but it does not provide more iron to consume or combine with more oxygen.

In vegetable life, the plant combines with carbon and light, and forms a greater quantity of the original substance.

In animal life, the animal not only absorbs and adds to its original quantity by assimilation, but, from the smallest to the highest, provides for the continuation of the chemical action.

ON THE IDENTITY OF ALL CREATION.

If the imponderable matter thrown off by the stars and other bodies was different from that thrown off by the sun, it would not affect our orbs of vision; we should not be conscious of their existence.

As, however, the light, heat, &c., are the same quality, only differing in quantity, we may conclude that all creation consists of the same matter, acted upon in the same manner.

Whoever first made the remark, *apropos* to some conversation, that it was "all moonshine," was nearer the actual truth than he imagined. The more we calculate on the identity of light and life, the more striking the proof that the one is identically the other. Let us take the chain:—

1. The sun gives out

2. Light, heat, actinic electric action.

3. A field of wheat, which for six months is imbibing No 2, is made into

4. The bread, the concentrated essence of No. 3, and is thus turned again into heat and electricity by

5. Man, a being composed of vegetables (or animals which are composed of vegetables, which is the same thing). The daily existence, the purposes, thoughts, imaginations, action and motion of this being is but the sunshine of last year stored in the wheat. Take his body—as long as you continue the supply of light and heat, (*i. e.* bread,) the temperature of it is kept up to 98°, although it may be zero in the surrounding atmosphere; cease the supply of "sunshine," and with it life, thought, motion, and heat, cease; our existence, in fact, is nothing but sunshine; our ships, made of sunshine (wood), go to foreign countries to bring us back cargoes of sunshine (tea, coffee, sugar, silk).

ON LIFE, INSTINCT, INTELLECT, AND EDUCATED INTELLECT.

Life may be defined thus:—

A portion of matter, without thought or idea of any kind, absorbs other matter, assimilates and incorporates it with itself.

Such is a chicken in the egg.

The total of life is here carried on without instinct.

Instinct may be defined thus:—

A portion of matter acts without the pale of chemical affinity (I mean there is no chemical affinity between the barley and the fowl that eats it), acts with a purpose to a future result, but without knowledge or intent of that purpose.

Example.—A wasp makes a nest of clay, not knowing to what purpose it makes the nest, lays an egg in it, not knowing the purpose of the egg, then encloses in the same clay-nest a living grub, not knowing that its egg will be hatched, and will devour the grub.

Intellect may be defined thus:—

A portion of matter acts without the pale of chemical affinity, acts with a purpose to a future result, and with the knowledge and intent of that purpose, but entirely with reference to self, and without regard to the rights of society.

Educated intellect is the highest phase, and may be defined thus:—

A portion of matter acts without the pale of chemical affinity, acts with a purpose to a future

result, and with the knowledge (more or less) of the means which have been previously employed to attain that result.

Where instinct ceases and intellect begins is an open question. A monkey is taught to beat cymbals, dance to a tune, and hand a hat round for half-pence.

Elephants carry and pile up logs of timber as accurately as men could.

Be this as it may, one result is clear, that educated intellect, by its superior power over all minor intelligence, will ultimately absorb them all, and convert them to its own uses.

On the Progress and Futurity of Educated Intellect, both as regards this Earth and all other Celestial Bodies.

In considering this matter, we must dismiss time, and look at it as a drama of which the scenes are tens of thousands, and the acts millions of years.

First, then, we had this earth a sun, evolving, not receiving light or heat.

Next, it had evolved so much heat, that water could lie on the land, and then began that enormous vegetation which forms the coal-beds. Simultaneously, animals also began in forms and qualities suitable to the yet excessive temperature.

The progress of cooling continues, different sorts of animals are produced, but all acting by instinct.

At last, we have man with intellect; and now, after perhaps 50,000 years since man may have made his appearance on the earth, educated intellect is only beginning to make a progress. The step from simple intellect to educated intellect is immense: contemplate the step from a tree hollowed out into a canoe, to the "Leviathan," with her steam-engines, paddles, screw, compasses, and charts.

Contemplate the step from knowing nothing of chemistry, up to the analization of every substance.

Also the mere looking at stars, with the present modes of calculating their sizes, distances, &c.

But what is more—ten times more—contemplate the steps now making, from despotism of religion and despotism of government, to liberty in both. It is a remarkable fact, that educated intellect advances with giant strides only in those countries where there exists freedom of religion, united to independence of person, and security of person and property.

Educated intellect is progressing fast in one sense, slow in another; fast in America, England, and parts of Europe; but slowly in proportion to the bulk of inhabitants of the globe. Slow or fast, however, educated intellect is progressing to the domination of the earth. Printing, electric telegraphs, railroads, steam-engines, aided by Enfield rifles and resistless artillery, form the education which the present uneducated portion of mankind are receiving at the hands of the educated. With educated intellect will ulti-

mately ensue good government; and, as is already in the United States, universal education, and then universal peace, then the excessive increase of population, until the whole vegetable productive power of the earth is taxed in the service of educated intellectual man, whether he consume it direct as in bread, or indirect as in meat.

This is the tendency of educated intellect; which, as regards religion and government, is now only in its first infancy; certainly, only here and there, in its teens.

There is no good reason for refusing to conclude that all the universe is undergoing the same phases. The sun will ultimately (never mind how long first) give out its redundant heat, and when it has no longer the means, by radiation, of being a centre to our system, it may have to go and revolve round some other luminary, and go through the same phases of creation and civilization that our earth has.

There is, however, no doubt that, by-and-by, the quantity of heat from the sun will diminish, but whether our earth will then "draw nearer the fire," or its temperature be decreased, is not so easy to say. The temperature at which vegetation could exist on our globe is very limited; witness the Poles, where it is almost extinct.

Vegetation, and consequently animal intellectual life, is therefore tied up, and confined to within 170 degrees of temperature, for under 32 degrees water would freeze and no vegetation could take place; and over 212 degrees water

would become steam, and no life could exist. True, animal life exists in frozen temperatures, but it exists by consuming animals which have lived by vegetables. The fish primarily lived on vegetables at the bottom of the ocean, which are produced by the internal heat of the earth; that heat has been regularly diminishing, and, by-and-by, larger portions of the sea will be frozen, as the Poles now are.

Perhaps, in coupling the education of the world with engines of war, I have not stated the argument sufficiently clearly. To comprehend it, we must look at former states of society, and former conquests. Go to the Crystal Palace and see the history of the kings of Egypt; war was plunder, and robbery of the nations invaded; not only robbery of property, but slavery of person. The wars of the Greeks and Persians were on both sides the same. The wars of the Jews were the same. The wars of the Mahometans were for the interest of that specific church—making the people accomplices, and dividing the spoil. The wars of the present day are unquestionably for the purposes of profit, but that profit can only be got by the introduction of steam and electricity in all its uses, and of a free press and protection of life and property, which are the road to educated intellect.

It may be said that, if educated intellect is the ultimate pinnacle of the union of matter and electricity, it is a long time coming about—but that we cannot tell. If man lived 100 millions of years, and when our planetary system was

burnt out could move to another, we should probably be able to form definite ideas on the subject. What we have plainly before us is this:—This earth, within the next 20,000 years, will be covered with rail-roads, and electric telegraphs, and steam-boats, like flying towns. The population, now 1,200 millions, will be extended to the utmost amount which vegetable life can supply. Education will gradually extend from the very few to the bulk of the people, and with education of the lower classes, government by the people duly represented, and for the general good, will be established.

Not that the nature and desires of man will be changed radically by this state of things from what they were under direct despotism; not that the one man would not wish to be the autocrat of the millions, but educated millions will not allow it.

It may be expected that I should say something on religion. I shall still adhere to the definitions of organized beings:—1. Instinct. 2. Intelligence. 3. Educated Intelligence.

Instinct I defined as acting with a purpose to a future result, but without knowledge or intent of that purpose. Religion cannot exist without in tent, and therefore cannot be applied to instinct.

Intelligence, or acting with a purpose to a future result, and with knowledge or intent of that purpose. Intelligent man has from the remotest periods, and in all countries, cultivated religion—always under the guidance of priests—and it followed, as the teachers, so the taught. The Druid

priests of England taught that the most acceptable offering to their God was men and women burned alive. It were endless to recapitulate the acts, ceremonies, and observances, which the priests of different sects have caused their followers to observe and perpetrate, with a view of securing present or future favour with the Deity.

Man, an intelligent being, has been dictated to by his priest as to what he should eat and drink, and as to when he should eat it, or when he should abstain from eating. The priests of one religion inculcate mutilation of the body; of another, that the highest offering to the Deity is the suppression of the reproductive tendency which animates all nature.

Man, an intelligent being, whose aim through life is acquisition and enjoyment, surrenders his judgment to his priests, and is persuaded by them into animosity, leading to injury of his fellow-creatures, for causes which are utterly without the pale of evidence.

A nation of intellect, but uneducated, is easily persuaded by its priests that the wholesale slaughter of another nation of a different religion will procure for them, at the hands of the Deity present prosperity and bliss after this life.

A nation of educated intellect would reject the imposture.

Therefore, the religion of educated intellect is superior to that of simple intellect, and the greater the spread of educated intellect, the more religion will become adapted to the general welfare of mankind.

RIGHT ACTIONS AND WRONG ACTIONS.

I must again refer to the division of animal intelligence into instinct, intellect, and educated intellect.

It is evident that an animal acting according to the instinct which is its nature cannot do wrong —it can do no otherwise than it does—it is like a watch, and can go only as it is regulated.

Simple intellect, uneducated, leads a being to consult its own apparent immediate interest or gratification, rather than the general good of society, or of mankind at large. Savages eat their prisoners—they have been taught to do so. Man holds man in slavery, depriving him of the power of becoming an educated intellectual being.

Shaped by Omniscience, reproduced and sustained by light, and hourly advancing by education to enforce laws which shall benefit the mass, rather than individuals—right and wrong are but symbols of the present views of educated intellect —and that even not over the greater part of the world.

Educated intellect appears to be as much a phase of creation as instinct—its powers and its comprehension 10,000 times greater—but, for reasons, we do not know, it works slowly, as we think.

Simple instinct is care of self, and self-gratification, without regard to the rights or property of other beings.

Educated intellect is care of self, and self-grati-

fication, with regard to the rights and property of other beings. That regard, however, must be left to the laws to enforce—for educated intellect, though honest as a nation, would have an inclination to be a great rogue as an individual.

Thousands of years ago, killing and stealing were declared crimes by society; but mankind, as nations, have continued to do that which as individuals they stigmatise.

On the Universality, the Eternity, and the resistless tendency to Educated Intellect.

The laws and results of nature are calculated with exactitude; whatever an animal has to to, it is furnished with the exact means of doing—no more, no less—every particle of its body has its specific use. But, besides the perfect machine, the Creator has imposed a moral force that that machine shall be taken, used, and made to answer the end of its creation, Keep a child, before it can speak, without food, its cries and screams are not the result of reflection that food is necessary for the sustenance of its body, they are the laws of nature, which not only has framed that body, but forced it to go through the phases for which it was created.

The animal, therefore, is forced to nourish his body. If he strikes it, or burns it, pain succeeds —he is forced to take care of it—he is a piece of matter placed in a chain of motives which he must obey.

If I go back uncounted thousands of years,

and look at the earth when covered with those animals which are in the Crystal Palace grounds, I see an earth covered with animals possessing only instinct, each one procured its food as its parents did, but without knowing how that was. I should say, here is a world without educated intellect; and, if I saw nothing else, I should be justified in concluding that the state of instinct was the proposed end of that world. There is nothing else there—every thing is good of its kind.

But if I go forwards into futurity thousands of years, and look at the earth as it will be when every foot of earth is cultivated to produce food for educated intellectual beings, and then contrast it with the state of the earth when only beings possessed of instinct filled it, I am justified in concluding an intention in the creative power of forcing the existence of educated intellect, on the ground that it exists, and that everything and form it takes is as much a forced existence, by circumstances, as when the child cries for food.

But this forced existence of educated intellect, absorbing all nature to itself, is the result of a Divine will, acting on two things—ponderables and imponderables—light and matter.

But this light and matter exist in myriads of bodies, through all space, and therefore, the conclusion is reasonable, that through all space, educated intellect is an ultimate result.

But this light and matter have existed so long, that thought cannot go back to a beginning, and a million million years take us no nearer.

And this light and matter will exist so long, that to go forward a million million years takes us no nearer to the end.

Our earth, in proportion to the universe, is as a grain of sand on the sea-shore; the appliances of light and matter in the formation of an educated being are beyond our comprehension in detail; to conclude, therefore, that these agencies and results are confined to the small speck we inhabit, would be limiting Omnipotence to a very trifling sphere; we are, therefore, justified in coming to the conclusion that animals possessing educated intellect have existed from all time, and will exist to all time, and through all space.

The child cries for food chemically, it has not the slightest idea that food is necessary to its existence.

Let us see whether educated intellect does not proceed chemically also. We are what is called "opening up" China. In a little time our persons and property will be safe there.

A number of men in England, makers of iron rails, want food.

A rail-road is planned in China, 2,000 miles inland, where now there are but uneducated beings.

See what a rail-road brings; steam in all its uses, intelligence, coals found, security to property, regular government, education, the knowledge of the arts and sciences, newspapers, and new ideas; and all this, not because Englishmen would go 2,000 miles inland into China, among savage and unlettered barbarians to teach them,

but because the Englishmen can get food (money) by it.

The savage first wonders, then reasons, then imitates, and thus becomes educated.

ON PUBLIC OPINION.

To appreciate this, we must begin with opinion itself. Opinion is the result of thought—more or less.

Public opinion is intellect, more or less educated or enlightened. Public opinion, a little while ago, burned and drowned a number of unfortunate old women as witches. Public opinion is not necessarily correct—that depends on the means the public have of forming it. A free press, throwing light on both sides of a question, enables public opinion to form a more correct judgment. The public then become the jury—the press, the counsel. Where there is no free press, educated intellect is in abeyance, and public opinion liable to the most erroneous conclusions.

Public opinion is at all times more despotic than any tyrant. Among 200 millions of Hindoos, any one who should touch (not even eat) a bit of cow's flesh, would be tabooed by all his friends and relatives.

Public opinion may be defined to be the state of the educated intellect of the middle classes of a nation.

CRIMES AND PUNISHMENTS.

A human being is a chain of circumstances—he happened to have a certain conformation of ideas from his parents; he is a Christain, or a Turk, as they were; he happened to receive education or none; he happened to have bad or good associates; he happened to inherit the means of giving value for the necessaries of life, or he happened to be taught how to earn them, or he happened to have neither.

What is he guilty of? stealing bread, or its representative. That he stole because he had not education enough to earn the representative. As you did not educate him when he was young, you ought not to let him go at large again until he is able to earn his bread. Prisons ought to be self-supporting schools—not dens in large towns, but self-supporting establishments in the centre of 10,000 acres of ground. Crimes in society are like sores on the body; you take more care of the sore place than of the other parts of the body, so you ought to with crimes against society.

Imprisonment for debt begins to be a recognised absurdity, so I will not enlarge on it.

ON SLAVERY.

The institution slavery is mark of intellect, because there is something got by it. It is also the most distinguishing mark between men and

other animals, for although a monkey is the nearest approach to a man, and many of his actions rather resemble intellect than instinct, still we never heard of a monkey, or any other animal, making a slave, either of his species or of any other.

The doing away with slavery is a mark of educated intellect, because there is more to be got by it. Let us look at slavery. The Jewish nation were slaves to the Egyptian nation; when they went away they took possession of Canaan by slaying and making slaves of its inhabitants.

In their turn, they were taken slaves to Babylon, and afterwards to Rome. Slavery has existed, more or less, ever since. The uneducated man submits to it first, by force—as the wild horse is caught; then by habit—as the horse is accustomed to; and the man's progeny, brought up in slavery, take it as a normal state.

The educated man follows the instincts of his nature in acquiring, by the labour of his fellow-creature, and the priests of the various religions find the justification in their religious traditions.

But when education is added to the intellect of the slave, he calculates that he would be more comfortable working for himself; and then, like the Jews in Egypt, he throws off his bondage as soon as accident allows—not, however, reflecting on slavery as any crime, but quite willing to hold his fellow-creatures as slaves if he could, and if their ignorance permitted it.

The extirpation of slavery, therefore, can only be accomplished by the progressive education of the slaves.

The Jews complained bitterly of their bondage under the Egyptians and liberated themselves, by force; but only to practise the same on other people.

DREAMS.

Have you seen a hound asleep before the fire after a day's run, dreaming—the short bark, the fore and hind feet moving as though he were running? The huntsman, or yourself perhaps, that night dreamt of forcing your horse over ditches and through thick woods, and woke with a start at some awful precipice, and it took some time for you to realize that you were snug in bed. Have you read histories of people in lunatic asylums, who imagine and talk as though they were princes and had immense wealth, and that the keepers were only parties in concert to keep them out of their due?

These are all electrical effects of the same nature; a photographic picture is the electric effect of light—the action of electricity on metals. But man is a compound of the very materials used in photography, only in solution. You have sodium, a white metal; calcium, a white metal; iodine, chlorine, and particularly phosphorus, and you have a continued internal spring of electricity.

It is curious also that any excess or diminution of phosphorus in the brain affects the sense and imagination.

In a work I have before me, it is stated that the analysis of the brain of man and animals gives the following proportions of phosphorus:—

In animals of the lower order	1 per cent.
In imbeciles (men) . . .	1½ „
In men of sound intellectual powers	2 to 2½ „
In men where a degree of eccentricity prevailed . . .	3 „
Complete insanity	4 to 4½ „

Phosphorus is a substance in a great measure composed of light. I wish you first to reflect on the intimate connection of the light with thought, so that the state of the intellectual faculties seem to be regulated by it; and next, that these varying quantities are only the result of the different power of the absorbents of different individuals; so that the man whose constitution causes him to secrete an excess of phosphorus is actually in the state of a man obliged to go on drinking spirits.

INSANITY.

Life is composed of two things:—

1. A body composed of ponderables.

2. A stream of imponderables, say heat, electricity, &c., proceeding from vegetables (or animals) by the digestive action of the body.

Now, if the ponderable parts of the brain are warped or twisted or inflamed, the flow of elec-

tricity through them will create an irregular action, just as much as if the ancle is sprained the electric power which moves the muscles cannot create a correct action in walking.

Again: insanity (in degree) may be produced by the imponderables which form the action of life. The drunken man who cannot walk straight, and in that state commits acts which he would not when sober, is *pro tempore* insane: that is, the correct action of his mind (and body too) is deranged by an excessive supply of imponderable matter which inflames the whole nervous system, and prevents him from walking straight or acting correctly. It is true the brandy he drank was ponderable; but if you had set fire to it and burnt it, you would have liberated heat which is imponderable; and this is exactly the same result as took place in the man's stomach.

One cause of insanity is the presenting continually to the mind a certain chain of ideas, until the ponderable parts of the brain are so warped and moulded that the ideas can only flow in that direction. The reason of this is, that ideas are the action of imponderable matter, light, and electricity, uponponderable matter, and this action influences the ponderable matter electrically, causing it to assume certain shapes—exactly as the light (which contains electricity) causes the ponderable matter in a photograph to assume certain shapes representing the image displayed to it.

Causes of insanity may occur in all complaints of the viscera or blood, because the nature of the

electricity produced, or the quantity of it, exerts more or less or undue pressure.

CHAIN OF EVIDENCE.

The great step wanting in philosophy is the evidence of the chain between the Creator, or creative power, and educated intellect.

For instance:—Every bee makes honey. A hive of young bees never saw honey made; might be taken where there were no other bees; still they would make the comb and the honey in perfection; therefore it was not the bee made the honey, but the Creator of the bee; the bee had no more to do with it than the brass or iron in a watch with the keeping time: but it is not the same case with regard to a man; the man made a watch—that was, because his father apprenticed him to a watch-maker. If his father had apprenticed him to an engineer, he would have made steam engines, and not watches. Now comes the question:—Was it the direct and intended act of the Creator that that man made steam-engines or watches? I say, yes; as intended as that the bee should make honey, and accomplished by the same power but different mechanism. To make honey and comb required only flowers and bees; but to make a watch requires the labours of 10,000 men. Iron, copper, and zinc mines have to be dug and the ores worked—machinery erected to make steel and enamel, &c., besides the machinery of the wheels. Therefore,

for the man to have made the watch as the bee makes honey, he must have been born miner, engineer, smelter, enamel maker, &c., besides watch-maker—which does not take place; but the man is born with two species of machinery in him—one machinery by which he can learn and comprehend all the inventions of other men. Another machinery which says, I want food, clothing, house, wife, wine, cigars, &c., &c.—say money, and if I do not get it I shall be frozen, or starved, or very uncomfortable. The man's father apprenticed his son to the watch-maker merely "because he thought it a good way to get a livelihood," just as a hen teaches her chickens to peck. The son, then, makes watches just as a bee makes honey.

CONCLUSION.

In the foregoing pages I have submitted to you certain facts and theories as to the matter of the universe—say, ponderables and imponderables; the action of that matter, say the production of vegetables, and animals of shapes, and with appliances, the excessive fitness of which to an end is matter of religion, and the evident result of the working of these causes, which is, or will be, that the greater part or whole of the light which impinges on, and is absorbed by, this globe, will be utilized by man as an educated intellectual being.

As to the existence of any other matter, or essence, than those I have alluded to, it is a

matter of religion, as well as the nature or properties of such supposed substances.

The combinations of matter in our bodies, by which we think and act, are circumscribed within very narrow chemical limits—abstraction of heat, say cold, congeals the fluids and the machine stops.

Excess of heat decomposes the liquids and solids, and we turn into nearly all gas. The stoppage of a supply of light and heat (vegetables), or of a supply of oxygen to develope it, puts us out as effectually as a lamp without a supply of oil, or if an extinguisher is put on it.

It is, of course, easy to imagine another substance which cold will not freeze—which fire will not burn, which requires no food to continue its existence, which cannot be disintegrated or killed, and which can see, think, and act.

It is impossible to prove to the contrary of the existence of such a substance, but it is equally impossible to prove its existence, and, therefore, as I said before, that is matter of religion.

The excessive and wonderful design and fitness of everything in the world for a purpose, render it apparent that wherever you see an effect, that effect is intended; that is, it lies in the nature of that chain of circumstances which is produced by the shapes and qualities given to animated matter by the Author of creation or causation; that if the cat eat mice, or the wolf sheep, or if wild bulls fight till one is dead, it is in the same order; that, going higher, when you read or see that man robs, murders, burns, eats, or enslaves

his fellow-creatures, it is equally in pursuance of the impulses and state of intellect in which that being finds itself; and those actions are the inevitable result of the natural wants and of the state of intellect of human beings under those circumstances; that, making an immense stride forwards, when you see, if ever you should see, a highly educated nation, where the people govern themselves by representatives, where person, property, and opinion are free and protected; where want is not known; where the children have all a useful education, and the culprits are treated as patients under a disorder; where religion is perfectly free, and not allowed by the state to be made the means of pecuniary imposture; where the soil and minerals are so well used and explored that that country maintains twenty times the number of inhabitants which it would if they were savages.

When you see, or imagine all this, you see an effect—of what? of education of precisely the same animal bodies as before robbed, murdered, laid waste, and enslaved, and who are pursuing each one precisely the same instincts of their nature as they were before they were so educated —namely, acquisition or absorption. It remains only now to connect this with intention; and, to use the expression (partly) of Paley, "If I see a watch and understand it, I am justified in concluding not only that the watch had a maker, but also that the maker intended that the watch should indicate the time, and the shewing the hour indicates the intention of the maker in making it; so the ultimate universality of edu-

cated intellect, absorbing all other life in this sphere, and probably on all others, indicates that intention of the Creator or Causator of it."

I may be met with the argument that the Creator did not will seeming wrong: to that I reply that our ideas of the Creator, of Omnipotence, and of Omniscience, are only suppositions founded on facts; as far as our facts go, our reasoning is logical—beyond that it is imaginative. I mean as thus: Dr. Paley found a watch, and argued logically that the watch proved the existence of a watchmaker; but if Dr. Paley had stated his arguments thus:—I have found a watch, and therefore I conclude that the man that made that watch could have made it any way I might fancy, his argument would not have been logical. So it might be argued that this world might have been created by Omnipotence covered with educated mankind, in full possession of all the arts and sciences, and cultivating them all intuitively and in perfection, as the bee makes its comb. This, however, would be imaginative and not logical. We have every logical reason for supposing that everything has been, and is exactly as it was intended to be; and, more than that, that it could have been no otherwise; for that things should have been otherwise, would have involved one of the two following propositions:—either that the plan of creation as now carried out is not the best, or that there exists another power which has not acted in it, but which could have acted differently.

Neither of these propositions is reasonable, and therefore we remain in the conclusion that the appliances of creation are the only ones possible.

READER,

Perphaps you think me sanguine or visionary as to the state mankind will ultimately arrive at; but have a little patience, and let us calculate! The first step to knowledge is to know that one is very ignorant, and that the world is daily becoming more aware of.

The Emperor of Russia has calculated out that it is more profitable to him to have forty million free men than forty million slaves.

England and America consider themselves model Governments, yet if you examine the subjects of the debates of the House of Commons, you will find that they hinge upon getting rid of antiquated customs and laws, and the everlasting Reform Bill is but a struggle between the rights of property or person. To take care of our property from the inroads of uneducated and unrepresented nations outside, we are forced to keep up an armament, the expense of which would educate every child born, and provide for all the destitute poor.

The priests of religion are mutually condemning the whole human race to imaginary torments for imaginary crimes.

The science of medicine is quite in the dark—the chemical effects of substances on the human body are not even understood: we pick out the healthiest youths for the army, and put them under the care of physicians, and they die faster than those who run loose with no care at all.

We don't educate the children of the nation, because rival priests are afraid of losing money by the preponderance of religions opposed to theirs.

And, as a consequence, we have a mass of crimes committed by uneducated beings, which would not have taken place had they been educated; and when we have caught the criminals, we turn them out of prison less competent to be members of civilized society than when we put them in.

We keep up taxes on knowledge by grown people, because we have incurred an unauthorized debt in the name of the nation, for 800 millions, and are afraid that the spread of education should bring on a more full representation, and that this incubus should be adjusted by the laws of right instead of those of might.

Mechanics and chemistry are the things we are mostly going a-head in, because every body gets by them, and therefore no opposition is offered.

This is our present state, and we see it and know it, and are perpetually striving to improve it, which is a great deal; and, by-and-by, in the course of two or three thousand years, which are nothing, and two or three thousand revolutions, like volcanoes here and there, with education spreading like light from morning dawn to full day, the masses of the world will arrive at the goal of intelligence which appears to be, as far as we can see by facts, the end of creation.

READER,

If in perusing these memoranda you have taken an interest in them, permit me to observe that, doubtless, some of the facts I have stated as chemical will be contested by abler persons than myself.

As to the other theories, I have deduced them as well as I could; as I said in the dedication, I have followed up the subject—leaving the conclusions to arise from the evidence itself, moreover my motive in committing to paper these views, has not been to write a regular work, but to bring forward certain facts and arguments which, when read and reflected on, would much simplify any discussions and conversations on the subjects treated of.

IDEAS (PERHAPS ERRONEOUS)

OF

"A CHILD AT SCHOOL."

READER,

I wanted to revise the foregoing—written four years ago, as I have been at school since then, but the Marchioness objected. I have yielded to an advice which saves me much trouble, and as your judgment will at once detect any errors of reasoning, my corrections would have been superfluous.

In the following pages the subjects are very much mixed, like an American dinner table, where every thing, from the soup to the dessert, is put on the table at once, to save time to that go-ahead people. The advantage of this is obvious, for if you don't like one dish you can help yourself to another.

International Exhibition, July 1, 1862.

To Thos. ——, Esq.

My dear Sir,—I have pleasure in addressing to you this continuation of thoughts, because you comprehended better, and took more interest in, the unpublished pamphlet which precedes this, than any one else I have met with; or, if that is saying too much, I can at least say that you evinced more liberality and independence in consideration of some of the arguments used and views taken, than the world at large feels itself permitted to do.

You know I had a few (100) copies printed, and my motives were two-fold—not to have wasted all the time the thoughts and manuscript had taken, and also to be able to ascertain, unknown and behind the scenes, what the opinions of the world would be; and if, really, the pamphlet were worth publishing at all, procuring so, a private review beforehand. The result of the verdicts so obtained may be summed up as follows:—Publish—don't alter; the work has partial novelty; it has materialist tendencies, difficult in many places to comprehend without pausing, written excessively condensed.

However—"man proposes and God disposes."—I intended to pass the season at Wisbaden and return to London for the winter; and, leaving the pamphlets in care of a friend, I went to

Wisbaden, where, in the midst of riding and walking and enjoying myself, a monster caught me suddenly and imprisoned me in a warm room for three weeks.

No one likes to acknowledge the first attack of the gout. It is either a chill, or rheumatism, or a sprain: for although gout is a highly respectable complaint, when only talked over with a pleasant physician who makes things comfortable, still, if one reads carefully over a few medical works, it seems like an iron ship attacking a wooden one, and if you don't get rid of your opponent you will be sunk. One man I heard of, as soon as he felt premonitory symptoms, took to walking inveterately till he walked it off. My friend (Dr. Barter, of St. Ann's Well, Cork), considers the human body as a sponge, of which the pores have got choked, and so by pouring water in at the mouth, and driving it out of the pores of the skin in his Turkish baths, he cures all complaints of obstruction. I cured myself by drinking nothing but lemonade, in such quantities, and so strong as to surprise a medical man who once dined with me. However, enough of the gout, from which I hope never again to have a visit.

The leaves were falling, and chilly blasts sweeping the avenues of Wisbaden, before my persecutor allowed me to leave my room, and instead of returning to England, I got away south as fast as I could: stopped at Marseilles, where just then the war with Austria was in agitation; saw the army embark and then the Emperor; and then, having become acquainted during my stay in Algeria

with several French officers, I determined to follow the army leisurely, and go to Venice; and as Louis Napoleon said he was going there for an Idea, we both travelled in Italy upon the same footing —except that he was to act as *avant-courier*, and I was to find free citizens and triumphal arches ready prepared.

He altered his idea, as far as I understood, because he got a letter from his Russian friend, (who had guaranteed him from a Prussian invasion on the Rhine,) that if he pounded the Austrians any more, a Republic was inevitable in Hungary, which would be very much against the interests of the said Russian friend, and therefore, having so completely mauled slavery in the shape of Austrian tyranny, he had better take care of himself and friends by plausibly tying up the hands of Liberty, lest that lady should (as ladies will) become too disorderly when all restraint was taken off her.

So I staid at Milan, and saw Louis Napoleon and Victor Emanuel return. Amidst all the saluting, and the illuminating, and the flags—there was a cloud over everything.

Conscience said—"You have not fulfilled those promises you held out when you called on the Italians to a man to help you, when your own existence, and the glory and welfare of France, depended on your coming off conqueror in the life and death struggle in which you embarked."

Policy said—"Take care of your Russian friend, you made a firm friend of him when you saved him in the Crimean War—he has acted as a

firm friend to you now, and will again in time of need—sacrifice your promises to your interests."

Be that as it may, I staid in Milan, and Magenta and Solferino were fought over and over again by my wounded friends, the French officers, in my rooms; and there chance, and the Swiss who supplied me with grapes, brought one day San Romè, the 2nd Chief Commissioner of Police. It was to ask me the favor to take his portrait, as I do a little as amateur in that art, and generally take a small apparatus with me.

San Romè was a character—he loved good cigars, good wine, and to play on the piano, and as these necessaries were in my rooms, with the remark, "Make yourself at home, but let me be at home also," San Romè liked my rooms better than the Police Office. In return, as he had been in the Police 20 years under the Austrian government, and was the only Chief who dared to stay after the Austrians were driven out—he became to me a book wherein I could read all the history of the Austrian domination, as well as the daily and hourly news of events.

"How have you alone managed to stay, San Romè, when all the others fled." "I always endeavoured to do the best I could without unnecessary severity—and if I saw a thief in a public place I treated him with civility, when I wanted him legally I took him."

San Romè had an inexhaustible fund of Police anecdotes—perhaps two or three of them will amuse you more than a great deal of this book.

THE DEAD MAN WHO TALKED.

The following is a fact, and the lawyer had not long been out of prison when I was in Milan:—

A rich man was dying: he hated his legal heir, and was going to make his will in favour of the relatives assembled. The lawyer was sent for, but while he was ascending the stairs the man died. Consternation! The lawyer entered.—"He is dead!" "When?" "As you came up stairs." "Has anybody been in the room?" "Not a soul." "Lock the door." The lawyer pulled the dead man out of bed, and put him under the bed, and put in the bed one of the poor relations and drew the curtains.

"Send for a priest." The priest came.

"Holy father, this poor man is making his will; let him finish that, and then have the benefit of your offices."

"And you leave (so and so) so much, and (so and so) so much, and your good friend lawyer—so much: and this is your last will and testament?"

"Ye—s—ye—s." Signed, and ending with a groan as expiring.

"Holy father, it is unfortunate this poor man could not have the benefit of your offices, but of course the needful must be done liberally with the church for the salvation of his soul: favour me by witnessing the will."

The property was divided on that will.

Three years afterwards a party dined in a public saloon, and were very jovial, and the wine was in, and the wit was out.—"You'll pay so and so?" "Very well: I'll pay with the money of the dead man who talked."

Dead man talked! Dead man talked! Suspicions—thoughts—doubts. The heirs and the lawyer were taken up privately by the police, and examined separately, the property restored, the conspirators punished—the lawyer with five years' imprisonment.

One day San Romè was taking a cigar, when the police came for him—a man murdered in or before a coffee-house, and the murderer escaped and not known. San Romè was back in half-an-hour.

"Well, San Romè?" "The blow had been mortal at once; the man never spoke; the assassin had escaped. As soon as I looked at the man, I said, 'Oh, I suspected this: so and so is the murderer,' and so it was."

"How could you tell?" "These two men had had a death feud for years; one of them informed against the other once, and got him put in prison."

A palace was robbed: San Romè went.

"Who has been here—so and so?" "No." "So and so?" "No." "Recollect back who has been?" "Well, two months ago a locksmith came to repair the locks, but he is a highly respectable man." "That's the man," said San Romè; and so it was.

"How did you know?" said I. "I saw by the careful way the lock was forced that it was a workman who did it."

While I was in Milan, a rich and respectable man called on the Chief of the Police (who had been sent from Turin), and said: "Sir, yesterday my son went out with watch and money, and returned without either. In the Café des Colonnes young men meet and gamble, and if you don't stop it, I will publish it in the papers."

The Chief sent for San Romè.

"We must stop this," said he, "it will be a great scandal for the police if it is published. How shall we do it?"

"I know the room," said San Romè, "it is an upstairs room; the landlady who sits at the bar has a spring close to her foot, and if any policeman enters the coffee-room she presses it, and upstairs they clear all away. I could not go," said San Romè, "they know me; but you have some fresh officers from Turin, let one of them dress as a gentleman; I will tell him how to get access. Meanwhile, I and others will hide near the house, and ten minutes after we will go in."

It succeeded. The coffee-house was shut up and the parties punished.

San Romè brought me one day a forged silver coin. "Just taken," said he. "How?"

"Yesterday, a man whom I knew was a thief, came to the police and said, "Signor San Romè, I am famishing." I gave him a good dinner in a private room we have for the purpose, and said, "What is it?" "You know there are forgers at work. You know I have been in the galleys, and don't want to go there again. I am asked to join them, but I won't. Close on the Canal, such a house has a cellar with windows on the Canal. They work there. A box is ready, and before the doors could be forced everything that could inculpate them would be dropped into the Canal."

Of course, San Romè placed a boat under the window and caught all, for which he got a handsome reward from the Government.

An Austrian police! I don't think you have a

clear idea of it. Talking one day about English police with San Romè, he said:—"Of course, I know little about foreigners, but there is not a regular inhabitant of Milan of whom I could not give in three hours the history of his life—birth, trade, moral qualities and political opinions, and whom he associates with. We have private books posted up. We know everything. You meet in society a man and wife, who seem tenderly attached to each other. We know they hate with such bitterness that they would poison one another if they dared. We give a man a good clear passport, and he thinks he is travelling quite unobserved; but on that passport are private marks, and when that man gets to Naples, Rome, or Vienna, the police never have their eyes off him."

An Austrian police! A world within a world. An irresponsible government within an irresponsible government. The Austrian police had the power to arrest and imprison any person for any length of time, without giving any reason either to the person himself, or to the Austrian Government. The police might or might not have private information; perhaps the priest, on the confession of the servant girl, denounced the party as having anti-government opinions. But you will say, "All servant-girls do not confess." If she does not she is fined; besides, every servant is bound under a heavy fine to report to the police every change of situation, which is duly registered, and before the police note down the change, indeed, the first thing they ask for is her priest's certificate of good and regular attendance at mass

and confession, and if she has not satisfied the priest she is in a fix.

You think this overdrawn. Why, even in Rome, which we shall reach bye and bye, here is a copy of a letter to me from the police. I had taken an unfurnished apartment and furnished it, whereby I became in the eyes of the Roman police a semi-Roman citizen.

PROTOCOLLO STATISTICO.

"As you omitted to inform this office of your leaving —— street, and removing to —— street, and the taking on in your employ a servant named—— According to the notification of his Eminence Monsignor Director General of the Police of April 1st, 1852, your are liable to the fine of 3 scudi (12s. 9d.) which you will pay at this office in three days, otherwise measures of stringency will be employed."

An influential friend of mine got me off for one scudo, which they said must be given to the Police for giving information. One of my servants had to pay a scudo for not having notified his change of situation, and as these fines go to the Police, they look pretty sharp after them.

It's all done so quietly too. While I was in Milan, 35 ladies, some of noble family, were brought one night late to the Police, and questioned and returned to their families, and probably no one out of their families knew of it. It was a very curious history, which I might relate, but could not print.

An Austrian Police!—Lord Ross's telescope is a fool to it— the Austrian Police sees and hears what is said and done in His Majesty's bed-chamber—when the curtains are drawn, and the doors are locked, and the guards are all round the palace.

I made an excursion to Venice—the shopkeepers told me they did not sell enough goods to pay their rent, and the gondoliers said they were living on pawning their effects.

San Romè gave me a letter to a friend of his in the police, and the chief honoured me with a visit which was protracted far into the night. As some of my friends in Venice had relations and friends in prison for politics, I reasoned with the commissioner as to the necessity of such rigor. All I could get out of him was, that the Venetians were a different race or class of people from the English, and that the mode of managing the one would not suit the other.

Milan was dreadfully hot the Solferino summer, so I spent the next at the Lake of Como, and was witness to the enthusiasm of the youth of Italy to join Garibaldi. They knew him well at Como, he had frightened the Austrians out of their seven senses, and youths were running away from their parents to join him.

From Como, I went to Rome, and settled down there to pass the time till the International Exhibition should open. Rome is in one respect different from London, that in London every one looks to the newspapers for the news of the day, that is, the under current, whereas in Rome there

being no free paper, the Soirées are enlivened by every one bringing in his or her quota of news, and where the visitors know they can talk without danger, such revelations and facts come out as, if published in other countries, would make people exclaim, "Can these things be?" There are Roman spies in London, who report the sentiments uttered by Roman citizens, in the coffee-houses they frequent here, and an incautious expression may cause the unhappy offender to be exiled on his return, and if he asked why, he will get the stereotyped reply, "for causes known to us."

Reading and writing are not much patronized by the fair sex of the middle classes in Rome, and scarcely at all by the lower classes. They manage their business very well without. The landlady of the first lodgings I took, after conducting the negociations with the utmost ability, when I requested her to read over the understanding we had come to, said she would show it to her husband when he returned at night, as neither she, nor her sister who was with her, could either read or write. She did not avow it with any feeling of inferiority on that account.

I had a youth to hold my horses and ride; he had been a postillion, and then a soldier under Lamoricière at Castelfidardo—excellent rider. I got once into a difficulty, and did not like to turn back, and he took the horses down where scarcely a goat could stand, riding one and leading mine. He told me once that it would be a great thing for him if he could read or write, as he could then

get a place in the railroad. "Well," said I, "you are waiting about for me two or three hours a-day; here are slate and pencil;" and I set him copies; but it was too late—he could not learn.

People told me he was either connected with, or knew well, all the thieves in Rome. I replied, that in that case he must have a very extensive acquaintance with the upper as well as the lower classes of Roman society.

He came to me one day crying—said his father was very ill, and could not afford medical aid, and did not like to go to the hospital. The father had been a Vetturino on the Civita Vecchia road, and was ruined by the railway. I went and saw the father; it was merely a gastric fever, which I put him in the way of curing; but more attachment between father, mother, and son, I never saw.

I was privately told that he carried one of those stiletto knives, in common use with the lower classes of Romans, about him, and next day out riding I asked him about it; he produced it immediately. "And if the police catch you with this thing in your possession?" said I. "Two years' imprisonment," said he. "And are you not a fool," said I, "to expose your father and mother to such an annoyance and disgrace? As soon as you get home, give it to your mother to take care of."

People here say, when the French go, the Roman employés and government must quit Rome. They must all go before a French soldier goes. The lower class are so expert in the use of those knives, and the hatred to the government is

so intense, and the death-blow is given so quickly and so surely, that the Gens-d'Armes and police would be disposed of in less time than it takes me to write this. And the people think nothing about it. It may be mentioned in the evening that a man was assassinated, but not as a thing to be inquired into publicly. A French officer looked in one evening. "There is a dead man lying at your door," said he. "Are they going to let him lie there all night?" said I. "I suppose so," said he, "as there is a person from the police watching him." And there he lay; people passed, and took little notice.

Ignorance and fervency of devotion certainly seem to go hand-in-hand. The following anecdote will amuse you, and as the lady who told it me was a Roman Catholic, and intimate in high quarters, it is very probably true. At one of the shrines in a church was a statue of the Virgin and Child, with the usual candles and ornaments. Two young priests noticed that a young woman came daily and prayed most fervently. Curious to know the cause of her fervency and gesticulations, one of them hid himself behind the statue. He heard the girl supplicating the Virgin most earnestly for a husband.

Next day, when they saw her coming, one of them again hid himself behind the statue, and, in the midst of her fervent supplications for a husband, answered—"No—no—no—no." After reiterated begging and praying, and receiving this answer, the girl got impatient, and seemingly from the tone of voice, she thought it was the

Infant who had said "No," for she exclaimed:—"Hold your tongue, child, and let your mother speak!"

If I went on with the odd and amusing histories and details which I heard and witnessed, I should be too long in coming to the real purport of this book, and even in setting about it. I wish I could have done it more systematically; but everything laboured is heavy. I must do it, therefore, as I can, leaving to your "organ of order" to re-arrange it in your mind.

The least objectionable title I can give to the work is "Thoughts on Different Subjects," which will give me the latitude ship-chandlers take, who sell everything from a needle to a sheet-anchor.

I certainly have been obliged to write this book —at least phrenologically. Walking down the Strand with V——, I said, "Let us go into De Ville's" and get phrenologized. We had neither of us ever seen De Ville. He said his terms were five shillings. So I sat down, and V. took a piece of paper and a pencil, while De Ville promenaded his hand slowly over my head. V. noted down the remarks or qualities under numbers; and No. 21 was "The power of tracing effects to causes." Which bump gave me that power I don't know; but I know that whatever subject presents itself to my mind, I have as irresistible a desire to sift it to the bottom as ever Paul Pry had.

Perhaps you would like to know the whole of De Ville's investigation into my "qualities," and as I do not feel that I have any responsibility on the subject, here they are:—

No. 1. Obstinate—may be led, but won't be driven.
2. Passionate, but soon over.
3. Not sly.
4. Very restless.
5. Not cruel.
6. Fond of ladies.
7. Cheerful.
8. Not over-religious.
9. Fond of music, but bad timeist.
10. Clever at picking up a language.
11. A good judge of a straight line.
12. Fond of travelling.

No. 13. Can draw plans, but not landscapes.
14. Imaginative.
15. No miser.
16. Rather fond of children.
17. Conscienciousness rather large.
18. Self-esteem rather large.
19. Tolerable mathematician.
20. Remembers what he sees.
21. The power of tracing effects to causes.
22. Hope rather large.
23. Constructiveness rather large.

Whatever may be said against Phrenology, the general delineation of my character here is correct, but especially No. 4, that I am very restless—No. 10, that I have picked up several languages with very little effort—and No. 21, that (successful or not), I endeavour to get to the causes of anything under consideration. As to No. 8, that I am not over-religious—by which De Ville hinted that I was under-religious—that I deny. Religion and superstition ought to be considered as two perfectly separate things. However, of this hereafter. What I mean to demonstrate now is, that this book is the result of that particular organism which De Ville describes as tracing effects to causes, and perhaps the *freedom* from superstition, which De Ville hints at in No. 8, may have helped in the development of No. 21.

I read in Smith's Philosophy of Health, published in 1851, as follows:—

"It may be that there are physical truths yet "to be brought to light, to say nothing of new "applications of old truths, which, if they could "be announced and demonstrated to-day, would "be the ruin of the discoverer. It is certain that "there are moral truths to be discovered, ex- "pounded, and enforced, which, if any man had "penetration enough to see them, and courage "enough to express them, would cause him to be "regarded by the present generation with horror "and detestation."

These are very hard lines, because it is neither pleasant to be ruined, nor to be held in detestation—and the more so when a man is not a free agent—for an organ so developed, that a man who never saw you before puts his hand on it at once, is much the same as saying that you have eyes which enable you to see at great distances. Are you then blameable for your eyes?—perhaps not for your eyes, but as Paul Pry was, for telling what you saw.

Perhaps Mr. Smith's prophecy may have reference to the prosecutions now being carried on against some of the authors of "Essays and Reviews." However, I have no pity for those gentlemen, because they exactly resemble barristers, who, having received a fee to defend a criminal,

and being in possession of all his secrets and confessions, publish a pamphlet, proving that he is guilty—thus taking money under false pretences.

However, Mr. Smith's denunciations are clearly against English law, for a man is punished (for perjury,) for saying the thing which is false, whereas, according to Mr. Smith, he is to be punished for saying the thing which is true.

Before going on with the various thoughts hereafter to be discussed, it may be as well to ascertain what we are, just as judge and jury are verified before any matter is brought before the Court.

In the South Kensington Museum the simple elements of a man, weighing 154 lbs., are stated to be:—

Oxygen	111	lbs.	.....	750	cubic feet.
Hydrogen ...	15	„	.....	3,000	„
Carbon.....	21	„			
Nitrogen	3½	„	.....	20	„
Phosphorus ...	1¾	„			
Calcium	2	„			
Sulphur	⅛	„			
Fluorine	⅛	„			
Chlorine	¼	„	.....	9	„
Sodium	2⅛	„			
Iron	1/10	„			
Potassium ...	3/10	„			
Magnesium ...	1/10	„			
Silicon	1/50	„			

And the space occupied by the gases, if they were not condensed by chemical affinity, would be about 4,000 feet cube, which is about as large as two houses, each containing four rooms on the ground floor and four stories high.

Here we have then the whole of that Being who investigates the firmament—analyses the earth—and speculates upon all things imaginable. I think the Professor has left out the electricity,

the motive power. Perhaps he could not get it into a bottle, as he has all the above elements; but it forms equally a part, as steam does of a complete steam-engine—inasmuch as steam really forms a component part of a steam-engine, as it cannot work without it.

Having got our human machine, or man, in order, and supplying him with exactly the same materials as he is composed of, but in a different shape, say food, water, and air, we find that he evolves a new thing, which the Professor has not put in the glass case in the Museum. He evolves Intelligence, and forthwith pierces space with telescopes, and detects ultimate atoms with microscopes, turning every element on earth to his use and gratification.

Intellect then, which moulds all elements to its wishes—what is it? It is an effect—evolved by material elements—under certain circumstances and combinations.

It is a property or quality, possessed by those material elements.

It is not a thing, any more than sound. A piano is a thing composed of carbon, hydrogen, &c., in the shape of wood, and metal in the shape of chords, and the music is the effect of the piano when played on; so intellect is an evolved effect of material elements, and not existing without them, and it is a quality or property of those elements.

Look at the whole of the intellect on all sides of you, from the blade of grass to the highest educated man, and you cannot detect the effect,

intellect, separated from the cause, matter. You can no more imagine intellect or intelligence, separate from matter, than you can imagine a bottle with nothing in it, and yet something in it, or than you can imagine a person playing a beautiful tune without any instrument to produce it.*

An intelligent and learned friend has done me the favour of perusing and commenting on this work, while in the press—but too late to embody his ideas in the work.

In abstract Philosophy, we are all like men prospecting for gold—and one may be more successful than another, without detracting from his merit—as he who to-day found nothing may to-morrow find a nugget. With this short preface I shall give you my friend's comments in his own words.

PAGE 78.

"No; music is the emanation of the piano, or, the effect produced "when the piano is played on. It is not the effect *of* the piano but "the effect produced *from* the piano under certain circumstances."

"Intellect is not a quality or property or attribute of elemental matter, "any more than music is of wood and metal. Intellect is evolved "from matter under certain conditions, as heat is evolved from lime by "cold water—music and intellect are a sort of chemical change—the "effect produced by certain combinations, but not the qualities of the "elements so combined."

Perhaps neither my friend nor I are right yet. The music is the effect, first of the man's intellect that made the piano, secondly of the man's intellect that played on it, thirdly of the quality of the air to transmit the vibrations, and fourthly of the construction of the ear and nerves to perceive them.

PAGE 79. Dr. B. says—

"Loose Philosophy! Matter is not the *cause*, chemical change is the "cause, matter is only the organ, fulcrum or instrument. The engine "is not the cause of motion in a train, steam is the cause, the engine "the instrument, and motion the effect. So again electricity (according "to your theory) is the cause—matter compounded into man the "instrument—and intellect the effect."

This is not exactly my meaning—I do not allude exclusively to the intellect which the man developes—but the intellect which developes the man or other animal; for instance, we have all of us eaten a new laid egg—well, in that egg existed the quality intellect—and when an egg is kept at a certain heat, as in the hatching ovens in Egypt, that quality intellect sets to work forming eyes, ears, beak, brains, muscles, feathers, and all the other parts of a chicken. There is produced in-

If I am tedious on this subject, it is to lay a clear foundation for the next axiom, namely, that the universe is composed of substances or elements, possessing properties or qualities, and that from these properties or qualities all the effects we witness arise. All shape, all color, all motion, all solidity, all fluidity, all design, all intellect, arise from the qualities possessed by these elementary

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tellect in making a watch—but that is secondary intellect—but the intellect I allude to as a quality is as though a man could put in a box a given quantity of gold brass and iron, and then endow it with such an intellectual quality, that after a given time and at a given heat, &c., the metals should of themselves form themselves into a complete watch—for this is what takes place in every vegetable and animal up to man. And the quality, intellect, which from simple elements produces the man and endows him with all his faculties, is (though of the same class) infinitely superior to the intellect developed by the formed man.

There are several distinct actions of intellect, which I will explain as well as I can, hoping some more able intellect than mine may throw a clearer light on the subject.

1st. There is the latent formative intellect which (for example) exists in an egg, as quality attached to materialism in the egg, and which, from a mass of albumen, gelatine and salts, produces a chicken—and this resembles the intellect with which a man would take gold, brass, and steel and make a watch.

2nd. There is the latent conservative intellect—by which the process of digestion, assimilation, renewing the skin or feathers, &c., is carried on—and this resembles the intellect of the man keeping the watch in repair.

3rd. There is the instinctive intellect—by which the chicken seeks its food—and which is the intellect of the man who winds up the watch.

4th. There is (in man) the disposable intellect—which enables him to devote his faculties to other objects than those required for his corporeal well being.

5th. There is the educated intellect—which is the same as the foregoing but to which, through memory, is added the experience of other men.

But all this intellect is a quality of material substances, and can no more be divided from them than you can take a pound of sugar and divide it so as to put the sugar in one glass and the sweetness in another.

Latent intellect exists in a quiescent state, though only rendered active by circumstances. If no intellect existed in the egg, how could the chicken be formed?

substances; for shape, color, motion, solidity, fluidity, design and intellect are effects, and therefore must be produced by the elementary bodies having the necessary qualities to produce them.

Now it is the highly cultivated and educated intellect which most interests us to analyze and discuss, for although we greedily scan the newspapers for a Mansion House, or Greenwich, or Social Science, or other dinners, it is not the turtle, or venison, or whitebait, or Champagne, or Burgundy, which arrests our attention, we gallop over those very desirable and covetable details, to come to the ideas evolved by Palmerston, or Brougham, or Gladstone, or Cobden, or Faraday, or other luminaries whose high education and great experience give us a greater feast in the perusal of their speeches, than they had in eating their dinner.

Still, you could not have the ideas evolved in the speeches, without the men, nor the men without the food. I reiterate, therefore, and make good the axiom, intelligence is an effect, evolved from material elements under certain circumstances and combinations.

Life is the same, it is but universally diffused intelligence, produced from the qualities inherent in elementary matter, only differing that life is unconscious intelligence.

In regard to the properties or qualities of matter, as producing life and intelligence, we have first electricity, coming from the sun, not light on its passage, for it only begins acting and becomes light, when it meets the elements of the

earth, and in combining with them produces life and intellect. Next we have the elements of which the earth and atmosphere are composed, each element having its qualities which are inseparable, unchangeable, and eternal as the elements themselves.

Hydrogen gas has the property of combining with Oxygen gas and forming water. Water at certain temperatures is solid or ice—liquid as water, or aeriform as steam.

Every elementary body (of the about 80 known) has also its peculiar qualities, which form the study of chemistry.

Chemistry applied to the human body and animals generally, forms the study of medicine; but medicine is simply the curative process, based, however, on the same foundation—that certain substances have certain unalienable properties—and applied to the body, act in a specific manner.

Still—the immense command and superiority of intellect over matter, or elements, perpetually drives us to the conviction that it is a separate thing, just as our eyes endeavour to persuade us every day that the sun rises and the sun sets; and it is not until we apply educated reasoning, that we are convinced of the fallacy of what appears so obvious. Close reasoning, therefore, obliges us to admit that life and intellect are transitory effects of the qualities of elementary matter in action.

And as elementary matter and its qualities have existed from all eternity, and will exist to all

eternity—and as similar causes produce similar results—intellectual bodies have existed from all eternity, and will exist to all eternity. Nay more, given another, or 1,000 planets, in eternity back, or in eternity forward, possessing the same elements as our earth, the quality of those elements must be the same as those of ours, and the life and intellect developed similar to ours.

There never could have been a beginning of matter and its qualities, any more than there could have been a beginning of eternity—they are, and must be, co-eternal. The term created is therefore erroneous, because it leads the mind astray to the imagination of something produced out of nothing, which cannot be.

We are puzzling our heads and amusing ourselves with speculations as to the advent of our species on the earth, and whether there were one or ten Adams and Eves, or whether we are a superior class of monkeys; and at what periods certain plants, shells, and enormous animals existed.

This is all very well and useful; but really and truly the plants, shells, animals and man existed in the embryo state of elements and qualities possessed by them from all eternity, only the peculiar shape, qualities, etc., of each, were developed by the effects of the phases which the earth has undergone.

Those phases indicate that at some previous period the earth was in such a state of incandescence, that none of the animal or vegetable life which we now see could have existed, and

that as it parted with its caloric, the elements of the earth acted on by the electricity from the sun, produced the succession of plants and animals which we trace, according as the different quantities of different sorts of gases permitted or enabled certain organisations to take place.

We know the accidents by gas in our coal-mines, and it would require only the addition of comparatively a few degrees of heat to the earth to convert all the water into steam; a little more would turn all the sulphur into vapour and sulphuretted hydrogen, and the present animal and vegetable life would cease. We may speculate as to whether the earth was originally a part of the sun, and incandescent, which somehow was detached, or whether the earth has passed through an infinity of phases of incandescence and cooling; these are all just and proper speculations, but they neither add to nor diminish the fact that all these changes were passing effects, caused by that which is eternal—original elements, and the qualities they possess; and even supposing the earth was once part of the sun, the question is not altered. The elements are unalterable, and their qualities unalterable, and the results of these combinations unalterable, and whatever effects are produced on the earth would be produced by similar agency in the sun. Now, it is with the results that we have to do, not with the thing itself. A clock that cannot go, an organ that gives no sound, a candle that gives no light, or a man who grew like an apple or a tree, and neither thought nor spoke, would not interest us.

It is the mind, the intelligence that interests us, and if we once formed part of the bright sun, was not, and is not intelligence produced there?

In our little way, does the best watchmaker produce only one watch? Is boundless intelligence fettered in its operations?

At the risk of a little tautology, I add a few reasonings on the same subject.

As regards Creation—there never was nor ever could have been— nor ever can be--any Creation at all, of any sort whatever. If there were, then Arithmetic and Mathematics are a falsity, for Creation means that an Element is produced out of nothing, which is an absurdity.

Neither could the qualities or properties of any element be created, for the qualities or properties of an element are virtually inherent in the element itself, and the element could not have existed at all without those properties.

Now the whole of every effect we see in the whole universe, is nothing else but the effect of the qualities and properties of the elements of the universe and their mutual combinations with one another.

The causes are the elements and their properties, simply and united.

The effects are the development of shape, intellect, and motion. The causes therefore not being susceptible of Creation, must have been eternal.

The effects also must have existed (from eternity), as often as the requisite combination of the causes produced them.

When Cuvier took one bone of an animal, which was living 10,000 years ago, and logically built up his skeleton, and then his viscera and muscular system, and then inferred his food, habitation and climate, and finally gave us the picture of the animal living, with the probable vegetable and animal productions of the earth at the time of that animal's existence—so that, we now, 10,000 years afterwards, see the picture of, and comprehend that animal as clearly as we see the picture of the race horse that won the St. Ledger yesterday—he, Cuvier, did nothing but follow the chain of reasoning in regard to particular animals, which holds equally good of everything whatever, animate and inanimate, and of every action of everything from the largest sun to the smaliest blade of grass—from eternity past to the eternity of futurity.

That there should be any mystery to us in any thing whatever, is simply for the want of knowledge of the causes then and there in operation—not from the deficiency of our reasoning.

As in one case we can realize an animal which 10,000 years ago lived, and how he lived—so, if we could have given, the elements and temperature of any planet, it would be equally possible to calculate the vegetable and animal productions of that planet. I say possible, not perhaps with our present amount of chemical science, but with an easily imaginable amount of science—just as we travel sixty miles an hour per rail now, but no one would refuse to believe the possibility of our travelling 600 miles per hour.

There has, therefore, never been any thing new in the universe—as it is, so it has been from eternity. The term new only applies to us, not to the thing or effect itself—just as the fashion of a fan may appear new to us, though it may have been in use 5,000 years ago in China.

The knowledge of these causes and effects depends on the progress of the sciences, and on the improvement of the instruments which we have need of, to aid our powers of analysis and vision.

The perfect knowledge of elements and their qualities would be the knowledge of causes—and the knowledge of causes would be the key to the effects—these premises accurately known, the universe, with all its details, would be as comprehensible a calculation as building and furnishing a house.

We study these things tolerably carefully as far as money is to be got, but as soon as the investigation ceases to yield a pecuniary benefit, very few persons trouble themselves actively about them, although they may willingly beguile an unoccupied hour in reading the details of the few who enter on them.

A Physician is called in to see a patient in violent pain—he instantly seeks for causes. "What have you eaten?" The dogma of experience tells him that strychnine and arsenic and colchicum produce such and such effects, and that such and such medicines are antidotes. He administers the antidotes, cures the patient, and takes the money. The patient does not pay him for the accurate chemical investigation of the

combinations of elements in his body which have caused the disorder, nor for the other combinations which have cured it, and consequently the most interesting part of the investigation (philosophically speaking) is not studied at all.

The key of the universe lies in the nature and qualities of the intelligence which governs the universe, and of which a sun, a planet, a comet, a blade of grass, a butterfly, a man, and a steam engine are all equally parts; for the secondary actions are but a consequence of the primary qualities, and the house which a man builds is just as much a part of the governing intelligence of the universe as the optical structure of his eye.

It is possible to surmise the nature and qualities of this intelligence, but it would require the united opinion of persons of great weight in society, to render any opinion on the subject acceptable to even the scientific part of mankind.

The French Academy of Sciences proposes a premium of 2,500 francs for the following essay:—"To endeavour to cast a new light on the question of Spontaneous Generation."

Being, therefore, a public discussion, I shall say a few words on it.—1st. Spontaneous generation: We understand partly what is meant, though the mode of expression is not logically clear. Spontaneous means a thing done of one's own will, and the will must precede the action; and how a maggot could wish to be generated before he is generated, is a puzzle; and if a maggot has that privilege, it is very hard that a man should not have it; and in that case, if, before we were born or begotten, we could peruse the history of our to-be-lives, as we read a play or a novel, a very great many of us would decline the honour altogether, unless a great many chapters could be expunged or altered.

If I understand what is meant, it is—supposing a quantity of matter, in which neither life nor egg exists, and that nothing be added to that matter, or if anything be added, it shall be matter in which neither life nor egg be present, can life or egg producing life take place?

The opponents base their reasoning on partly religious traditions—from the generally inculcated sentiment, of the beginning of an action, which did not in any shape exist before. We must make every allowance for the state of science when those traditions originated; the men who

originated them did so honestly; the sun appeared to rise and set, and appeared to be of no other use than to enlighten the earth by day. The history of Moses may be taken to represent the ideas of the Egyptian priests; and the clear sky and constant occupation of guarding their flocks from wild beasts by night, made them great, though unscientific, observers of the firmament. Moses having written honestly what appeared to him, we may also reasonably suppose that if he could come back now, and receive an astronomical, chemical, and geological education, he would give quite a different version of the beginning of all things.

It is no part of religion to dictate how the universe is constituted or governed. It may be an essential part of true religion to enquire earnestly into the laws which govern the universe, but certainly not to object to them when ascertained.

The great interest attached to the question is, that it is the small end of the wedge, by which to conclude that all animals and man are produced the same way.

Generation also, as a term, gives a partial idea of something produced out of nothing, if not a substance, an effect.

But no effect can be produced without elementary matter in combination, having intrinsically the qualities to produce that effect.

Every animal and plant may be defined thus: a portion of the elements of the universe, having a specific shape and organization, producing cer-

tain effects which we call vital, by an internal chemical action on other portions of elementary matter which it imbibes, and eliminates when that action has been produced, again to re-absorb fresh materials.

The exhausted part of the argument between scientific men on this subject, is, that as soon as one has kept some substance at such a heat, for such a time as to theoretically destroy all animal life, and then animalculæ appear, his opponent founding his arguments on Cholera Morbus, which crosses the sea, and on potato blight, which spreads like vapour, replies that all air and water is full of these germs, and that consequently what No. 1 shows as a spontaneous or preternatural birth, is no such thing, but the descendants of the monads, floating about everywhere, the lineal descendants from a certain Adam Monad, without which none of them could have existed; and who was formed by a preternatural interference with the elements and their qualities.

But the laws of the government of the universe are so infinitely well administered by the elements and their qualities, and are so inflexible in their requirements, that it does not seem to me that they stand in need of preternatural aid to form a poor little monad, or any sequences resulting from him.

Those laws say, "You shall be born, whether you will or no, and what is more, whether your mother will or no." "You shall eat to preserve your life." Society says, "Thou shalt not steal." Nature says "Thou shalt eat"—and where the

two clash, nature gets the better. Nature gives you pain the moment you attempt to injure your body—more, if a fly comes too near your eye, the eye shuts and protects itself without your thinking, and without any preternatural interference.

It appears to me that generation is neither spontaneous nor preternatural, and that the key to the subject is to be found in the action and qualities of electricity, or from the action of the sun, on the elements of the earth and their qualities. This is a subject which is yet really in its infancy. I mean the qualities inherent in the emanations of the sun—call it electricity, or light, or heat, or chemical rays.

The two people to whom we are most indebted philosophically for discoveries on the effects of light, are Jacob and Daguerre. The 30th chapter of Genesis, from verse 37 to 41, is one of the finest treatises on animal photography in the world. This is not a work to comment on the honesty of Jacob as explained in verse 42, but physically on the effect of light.

However, as Jacob related the circumstances himself (or else, nobody would have known them), he will not take amiss my comments on the affair.

Jacob was an observant man, and remarked that cattle, being obliged to look at white lines, produced spotted offspring. Jacob, like Daguerre, wanted to make a profit of his discovery; but there were no patent laws then; besides, if there had been, his discovery would have been of no

use, even if he had taken out a patent, for white cattle were more in demand than spotted ones.

So he formed his plan, got up a difficulty with Laban, and proposed to quit. Laban, worthy country gentleman, not liking to lose so good an overseer, asks his terms to stay.

He replies: "Give me the spotted cattle."

"Very well," says Laban, little dreaming what a character he had to do with. So first, Jacob drove away all the spotted cattle to a farm he had three days' journey off, and then returned to the service of Laban—not to do his best for the interests of his master, but really and truly to defraud his master, by making the strongest and best cattle breed speckled young, which became his by the agreement he had made with his unsuspecting employer. One point noticeable is the excessive exactitude of the description of the operation and its effects, carrying evidence of truth. Another important matter is that (as every photographer knows) direct sun-light is more than a hundred times more powerful than reflected light; and yet this reflected light, acting on so small a space as the eyes of the cattle, produced a specific formation, and that, not on the cattle themselves, but on that most delicate of all tissues—the embryo in the womb. If then light, acting in so diluted a quantity on the gelatinous substances of an embryo, produced such an organic transmutation, what might its direct effect not produce?

I believe the ladies could (if they would be so good) give the Academy of Sciences some most

useful details (in a philosophical point of view) on this matter.

I have heard that the photographic series of events, which takes place, is as follows—a lady of delicate nerves, in an interesting situation, longs for something which she cannot get; or is frightened at something; then, while she is in that excited state, whatever part of her body she touches with her hand, there will be photographed the picture of the object she has longed for, or been frightened at, it may be strawberries, or cherries, or pickled cabbage, or liver and bacon, in the matter of eating, or a mouse, or a spider, or a black dog in the matter of being frightened. If, however, it is true, (which, not having the honor of being of the sex, I cannot personally vouch for,) the photographic effect of the light will be:

1st. The object is photographed on the brain, then through the nervous system, again from the nervous system it is concentrated on the part of the body she touches, to reappear, (as Jacob's wands did,) on the baby she is going to be the happy mother of.

2nd. And if light can do all this, by virtue of its own inherent qualities, can it not act upon the albuminous and glutinous matter of plants in water, and produce a simple monad?

"SINGULAR PHENOMENON.

"In the afternoon of Monday, the 9th instant, the hamlet of Aldreth, Haddenham, was visited by a severe thunder-storm. In this place there are two cottages standing in a lone place, occupied by Daniel Cockle and John Stokes, labourers. About five yards from Cockle's house, and in an adjoining field, there is a young elm-tree. The tree was struck by lightning; the fluid travelled from thence in a very indirect line to the furthest house, entering the back door, which was open. Ann Stokes, aged fourteen years, was standing in this room, not facing the doorway, but near the middle of it, and in a line with the door. The electric fluid struck the girl's lower extremities, paralysing both feet, and producing an imprint upon the left leg and thigh, of the colour of scarlet, and in every respect resembling the tree itself--viz., the trunk, the branches, and the leaves, and in the most beautiful model form it is possible to conceive. She has regained the use of her limbs, and the daguerreotype appearance is fading away. Strange to say, her dress was not in any way injured by the electric fluid."—*Cambridge Independent.*

Let us examine this carefully. I cut it out of a newspaper about three months ago. I keep an album, and cut out any chemical or philosophical notices from papers for reference.

The fact must be taken as true: the *Cambridge Independent* and Ann Stokes are there.

It is credible, for electricity is a modification of light. We have Jacob, who, by reflected light, produced speckled cattle. A friend with whom I talked that over, asked me whether anybody had tried Jacob's experiment since. Of course not: it would not pay. Jacob did not go on with it on his own cattle.

If a profit had been to be made by it, mankind would have investigated it fast enough. One hundred millions have been spent on photography, but the keys to the knowledge of the world of creation lie about on the ground, nobody picks them up, unless they appear to open the door of profit.

When Niepce began the study of photography it was based on the effect of the discoloration of bitumen by light—everybody has seen that—when a picture has hung against a deal partition for some time and is taken down, the mark remains where the picture was, because the light could not act on the turpentine in the deal. Niepce had no idea of profit, he was a country gentleman who occupied his leisure time in scientific pursuits; it took him two or three days' sunshine to produce a perfect blotch of a picture, not portrait, but of a house with the sun shining on it. But it was the key—Daguerre was puzzling his head on the same subject, and heard by chance in Paris, that Niepce had produced some sun-pictures by bitumen of Judea. He wrote to Niepce, proposing mutual communication of ideas.

Niepce at first refused, afterwards consented, and after thousands of experiments they found the key to the door of profit.

Here is, I won't say a miracle, for to constitute a miracle the laws of the universe must be upset, but a thing called a singular phenomenon, with no profit attached to it, but we have it before our eyes.

Mrs. B. told me three evenings ago, that she had seen the picture of the mouse which frightened the mother, distinctly on the child. That we account for in this way, during gestation the mother is continually electrically forming the child in her resemblance, and any sudden shock might, through this channel, imprint the mark; but here we have the electric fluid which conveys the photographic picture of the tree to Ann Stokes's leg. As to the picture fading away, that is easily accounted for. Very permanent marks only occur in gestation, (as with poor Laban's cattle,) when the body is quite a gelatinous mass; and the metals which were temporarily solidified in Ann Stoke's leg, would be redissolved during growth, as any bruise passes away.

Two photographic questions arise on this point—1st, was Ann Stokes looking steadfastly at the tree, (though it would seem she was in the middle of the room, and could not see it,) and when the flash of lightning suddenly illuminated the tree, was the picture conveyed to her brain through the eye, and then, the lightning striking her leg, was the picture on the brain produced on the leg?

612122 A

If that was not the case, another action took place, which I have not ventured to hint at, because without proof it passes our bounds of conception, at present, and might be called perfectly chimerical.

The electric fluid passed in an indirect line, at least eight or ten yards, conveying in itself and with itself, the perfect picture of the tree. Ann Stokes's leg was composed, as all legs are, of photographic materials, viz., albumen, gelatine, iron, calcium, potassium, sodium, &c. The electric action solidified certain metallic salts in Ann Stokes' leg, and if it had only produced a large black mark like a bruise, the scientific question would have been quite different, and probably not worth investigation, so many people having been struck dead by lightning; but, to make the picture of the tree, the electric fluid must be a conductor of shape, for although we deposit silver on spoons and on photographs, no shape is conveyed, the photograph is simply that more light causes more silver to be deposited in one place than another, thus forming a picture; but here is a picture coming round a corner into a room.

How far can electricity convey a picture?—if ten yards, why not ten thousand miles? Or let us allow our imagination momentary flight. The rays of the sun are not light; if they were light there would be no night; they become light when they strike and act electrically on the atmosphere and earth, and not before—or on our eyes, which is the same; till then they are just as they left the sun, with all their qualities.

Can one of their qualities be to bring form and shape with them from the sun? if any sort, no matter what, let it be the simplest electrical point, which, incorporated with stagnant water, produces an infusion only visible to the most powerful microscope, and it possibly is as big as the first germ of an elephant. The size anything becomes on the earth depends on other circumstances. Our ferns, now two feet high, were once gigantic trees.

We have not yet found out the reason of size: why a mother should produce one child a giant seven feet six, as I saw in Paris, and all the rest of her children the usual size. There may be truth in the words, "there were giants in those days"—but this is quite a digression, and has nothing to do with the question, "How came the picture on Ann Stokes's leg?"

Besides, every determinate shape indicates an intention or a quality to produce that effect.

If I see a heap of clay in a field, I do not see any intention; but if half that clay is made into bricks, I say there is intention, come from where it may.

So crystallizable substences form certain determinate shapes—an effect is produced—that effect must have had a cause. Was the cause the inherent quality of the substance—part of the "great first cause?" And crystals grow also and reject extraneous matter.

May not albumen and gelatine, under certain circumstances have the same qualities of taking a

shape, increasing and rejecting impurities, as a crystal?

But, hay in water, meat, cheese, vinegar, &c., with heat, produce different animalculæ—each article invariably producing the same sort of animalculæ.

Either these are produced by the action of electricity, from the substances themselves, or by ova in the atmosphere.

The atmosphere, then, would have in all places to be full of all sorts of ova, ready to be deposited, or rather flying in an instant each into its particular mixture.

This cannot be, for we know that the farmer is glad of a sharp frost, because it destroys the eggs of grubs.

How much more, then, would it destroy the ova of animals 1,000 times more fragile?

We must conclude, therefore, that light, heat, and albuminous or other matter is capable of taking a vital form.

The Academy of Sciences has advertized also for another essay, at 4,000 francs, viz.:—

ON THE PRINCIPLES OF HUMAN INTELLECT.

Many renowned and accurately reasoning men have written volumes on this subject. Have they written correctly, or did they write only, honestly as Moses did, drawing conclusions from what the knowledge then possessed by the human species permitted, but erroneous when tested by our present state of knowledge?

Human intellect is an effect—the most wonderful—the most exalted—the most stupendous—the most powerful of all effects; but, like the opera we hear, or the railroad which carries us, it is but an effect.

We must go back to our man; he weighs 154 lbs., compounded by that universal intellect which governs the universe—governs, not preternaturally, but by the agency of elements and their qualities, and, therefore, the more accurately we know the qualities of each element, the more correct will our reasoning be.

Great discoveries generally commence in the most trivial manner. Millions of men traverse a country, and some pick up a bit of gold, but think nothing of it, till one man comes and reasons, and the gold is found.

Jenner's discovery of vaccination began by some milk-maid, who slept with a child who had the small-pox, and who replied to his remarks, "Law! Sir, we as milks the cows never gets it!"

In 1820, Coindet, a French physician, cogitated that, in complaints where sponge was given, it could not be the vegetable matter in the sponge which effected the cure, so he analyzed the sponge, and found Iodine.

The discovery spread. Iodine has become a universal medicine; it is found to exist in almost every plant; but more than that, and which bears upon our argument, it is found that in those localities where Iodine is deficient in the soil or the plants, Goître and *Idiotcy abound.*

Is it not, then, an important question, in what degree human intellect is affected by Iodine?

Again—Phosphorus. You see our man in the Museum has 1 lb. 13 ozs. of phosphorus in his body. We are now talking of elements and their properties, as bearing on the question of human intellect, and I copy from books.

Kyan's work, 1838, says:—"In the analysis of the brain, however, evidence has been afforded of the fact, that phosphorus is a component part to the extent of certain proportions, which are in themselves relative in a measure to the sanative state and perfection of the intellectual powers of the being from whom the brain may have been taken; and it has been supposed that when the quantity of phosphorus fluctuates to 2 to 2½ per cent. of the brain, the party was possessed of sound intellect; while, when it exceeded 2½ and

reached 3 per cent., there was a degree of eccentricity, and at 4 and 4½ per cent. complete insanity; while, on the other hand, descending to 1½ per cent. produces imbecility, and to 1 per cent. the gradation suitable to animals of the lower order."

Now in collateral or partial confirmation of the above, we have a recent weighty authority. Monsieur G. Vite reported to the Academy of Sciences in Paris, per *Moniteur*, November 12th, 1861, the following remarks and experiments:—

"Phosphorus is a necessary agent in the life of plants.

"Grasses and wheat will germinate without phosphorus, but if no supply of phosphorus be in the soil, the plant dies in a month. An addition of 1 centigramme remedies the languor.

"Peas grow the first year, but not the second, without phosphorus; probably because the pea contained phosphorus the first year which sustained it."

But we have now a question to ask of the sciences. Iodine and phosphorus having qualities directly influencing the quantity of intellect, what effect has the oxygen, the hydrogen, the carbon, the nitrogen, and still more, the continued supply of electricity the human body is constantly producing?

There is, however, a point of view in the great scheme of nature, which particularly bears on Human Intellect.

It is this—each combination of elementary matter in the shape of vegetable, or animal, (or

man) is redissolved, (we say dies) as soon as it has produced that which it was intended to produce, and there is an intention in every thing produced.

Thus, the vegetables are positively necessary for the support of the animals—accordingly we will take a grain of wheat—as soon as it has produced its seed the action is done, and it dies. The silkworm dies as soon as it has laid its eggs.

But in man the case is quite different, for it is ascertained that the brain has not reached its greatest weight and development till he is forty years of age, and continues at that maximum till fifty. So that the reproduction of his species is provided for at an earlier age, and arranged as a secondary object compared with the production of intelligence, and after fifty, when the brain begins to recede from its greatest weight and development, education and experience make up for the deficiency, and man often stands on the pinnacle of creation, after his reproductive, as well as muscular powers, have diminished to a very low ebb.

Human intellect is but the continuation, the step higher in the ladder of the intellect of all creation, and without education, not a very great step, but with education and the discoveries of the qualities and powers of elements, the step becomes immense.

It is produced by a conformation of brain, leaving the intellect, so to say, moveable; that is to say, the brain of the bee is so constituted that it cannot possibly think of anything but making

honey, whereas the human brain admits of its energies being directed to any and every subject. Insanity being in most cases that peculiar conformation brought on by circumstances, which does not allow of the free action of the intellect.

Intellect is the effect of electricity acting on certain peculiarly formed animal machinery. As one steam boiler may drive six different engines, so seeing, hearing, smelling, tasting, feeling and thinking, are only different machinery put in action by the same motive power. Feed a man and a horse, both on bread and water, the electricity developed is the same, but the machinery it acts on is different. So when one faculty is lost, more power is expended on the others. So when we want to think deeply we concentrate our ideas—or, so to say, turn all the steam to one engine. Milton probably could not have written Paradise Lost, if he had had the use of his eyes.

Byron, in addition to concentrating his ideas on what he was writing, added a little fuel to the boiler in the shape of gin and water.

But there are two intellects in man, the one under his direction or control, the other, very much for our comfort, not so. Imagine two glasses of water—No. 1 represents the waking faculties, or the intellect disposable and controllable—No. 2 the sleeping, digesting, assimilating faculties, going on providing that essence for the action of life, which No. 1 is to expend.

A certain exact specific quantity of chloroform puts No. 1 to sleep, without at all affecting No. 2.

No. 2 continues performing the most delicate

and scientific chemical and animal operations, even to the throes of birth.

But, after you have saturated (so to say) No. 1, if you continue administering chloroform it attacks No. 2, and then the machine stops. I have not heard any chemical explanation of this quality inherent in chloroform and ether, nor of the similar effects produced (as far as No. 1) by mesmerism; but I have no doubt, from what I saw in the East Indies, that mesmerism was perfectly known at the same time that Jacob practised photography on the cattle.

A Mussulman coolie was brought to me ten minutes after he had been bitten in the finger by a Cobra cappello. He was perfectly comatose; the slightest heaving of the abdomen alone showed that he was not dead.

I tried successively all remedies recommended in medical works, stronger and stronger, even to pure liquor ammonia in his mouth, utterly without success; not the slightest move of the muscles showed any sign of returning life. At last a head coolie came to me, and said, "I think, sir, I can cure him." As I could do nothing, I told him to try. He made the (about) 200 coolies looking on keep in a distant circle, and then as regularly mesmerised the man as though he had learnt it of Mesmer—particularly passing his hand down the arm to the finger where the bite was, then taking it off and shaking it, as if shaking something off. In about half an-hour the man woke, and got up. I had him asked if he was aware of anything that had happened; he said

no, but that he had a very nasty taste in his mouth.

He said he had gone to a cupboard, and put in his hand to reach out a jacket, and the snake bit him.

Now, these coolies came 500 miles from the interior of India in search of the higher wages paid on the coast—could neither read nor write, nor speak any language but an inland Hindoo. And their families had lived there from the time of the conquest of India by the Turks; so that the art of mesmerism must have descended to them from father to son.

It is, however, to sum up, very clear that there are a great many physical facts, bearing on the human intellect, yet undiscovered; and that speculative reasonings will have much greater probability of accuracy, after the discovery of these facts, than they now can have.

LIFE.

The human animal possesses what may be called four lives, each one distinct from the other, though dependent on and influenced by the others:

No. 1. The sleeping life.
2. The waking life.
3. The reproductive life.
4. The educated life.

The sleeping life appears to be actuated by the final reserves of nervous fluid, while the waking life is conducted by the surplus; for if a given quantity of chloroform paralises temporarily the waking life, but does not interfere with the sleeping life, a farther quantity paralises the sleeping life, and, at last, stops it entirely.

If we imagine the quantity of nervous fluid in the body as 100, perhaps the waking life may consume as 30.

When that is consumed by exercise we feel tired.

Sleep enables the body to secrete and make up the nervous fluid. If from illness or other causes activity is continued and sleep is prevented, the nervous reserves of the sleeping life are called in, and excessive debility, or even insanity, ensues; and it is from the ignorance of this fact that so many of our ablest and most intellectual men die in the prime of life. The sleeping life may be compared to the principal (in money) and the waking life to the interest. If you expend only

the interest your capital continues producing; but if you not only expend the interest, but trench deeply on the capital, ruin ultimately ensues.

So the sleeping life is electricity employed in high creative intelligence; it has to digest the food, assimilate the chyle, repair the nerves and muscles, besides storing a quantity of electricity for next day's use. It follows, of course, that if you use up that reserve the digestion is impaired, the nerves have fever, called nervousness, the muscles are weakened, and the mechanism of the body being deranged life is shortened.

The reproductive life is entirely separate from the other lives, though influencing them, and being influenced by them most powerfully. Still, that it is entirely separate is proved by the fact that all the functions of the body continue the same when it is destroyed forcibly or otherwise. Also, that all the functions of the body are the same before and after the appearance and disappearance of it.

The term educational life may be objected to, as not properly belonging to the series. Still, its so influenceis immense on all the other lives that I consider it a separate life; for, if we suppose two children of the same parents, with exactly the same natural capacities, and let the one have the highest education in all its branches, while the other is neither taught to read nor write, but allowed to gratify its tastes of all kinds, without control, as in a state of nature, we shall have two such absolutely different beings, that we are justified in classing education as a distinct part of life.

THE FUTURE.

When we hear a brilliant oratorio, we lose sight of the wood, and iron, and brass, and electricity which have produced the sound; even the players do not much arrest our attention; and though we do honour to the composer, still it is the total effect which rivets our attention and admiration.

So when we contemplate mankind as a whole, or, as an author in "Essays and Reviews" truly said, as one colossal man, and see that he pierces the firmament, measuring its distances, calculating the movement of its bodies, analyzes light, separates each element of the earth one from another, explores their uses and qualities, subjects all the powers of nature to his uses and convenience; we have that mass of developed intelligence before us, that we are justified in enquiring whether, in the hitherto inscrutable intelligence of the universe, the necessity may not have existed, in the ordinary course of development, of all those changes the earth has undergone since it was liquid, to produce such a result as is in process of consummation.

It is only a few years ago that printing was invented, enabling the colossal man to utilize the millions of acquired discoveries and facts. We see the light now only as travellers in a long tunnel discern the glimmering at the end; but we can clearly calculate something—say 1,000 years—a trifle:—The whole earth at least railroaded, if

nothing better and more expeditious is discovered; intelligence from every corner of it instantaneous; the production of food from sea and land a hundred-fold what it now is; a population one hundred times larger; the whole productive powers of the earth diverted to the maintenance of man; man the producer of educated intellect.

Whatever is intended to be done in Nature, is done. As surely as the bee makes honey—as surely as the hunger felt by the child is intentionally caused, that it should cry for food—so surely is the intellect of man irresistibly impelled forward to consummate whatever his part is in the grand march of events in the universe.

JULY 12TH, 1862.

Yesterday twenty-four nations met at the International Exhibition by their representatives, to give medals and "honorable mentions to the exhibitors of articles of excellence." In other words, to give a universal and world-wide approbation to the men whose discoveries have most tended to advance the cause of human well-being and intellect.

It is pleasant to read part of the report of the Council of Chairmen:—

"Notwithstanding the varied nationalities represented in the juries, it is gratifying to record that the utmost harmony has prevailed during the whole time that the jurors have been associated in their labours. The mutual dependence, and intimate alliance between the industries of the world, have been illustrated by the zealous and impartial efforts of the jurors of different nations to recognize and reward the merit displayed in the exhibitions of their industrial competitors."

I wish that all the Emperors, Kings, and Presidents, attended by their ministers, had been there, and that after due investigation, a medal had been given to the best government, and an "honorable mention" to the second best.

And I wish that the heads of all religions had been there, and that the same process of world-wide approbation had been awarded to the one

which was most conduced to human happiness. What a saving of time it would have been to the Houses of Lords and Commons in the discussion of church rates, and as to whether the liturgy should be altered, and whether the Bible is the true translation of some unfindable and illegible manuscript.

All these discussions arise from the existence of "Vested Interests;" a vested interest is a very curious thing, it is the effect of an effect, joined to positive organic elements, which prevent it from ceasing.

A man, or men, persuade an absolute sovereign that a certain religion is the true one; so far, that is only an effect produced on that man's (king's) mind, and if he only stated to his subjects that that was his opinion, leaving them to form theirs, the matter would not go out of the sphere of effects, but when he passes a law, that 10 per cent. of the harvest shall be given to men throughout the country, to preach that religion, and as in Spain, that no other man shall be allowed to preach any other religion, he adds organic elementary matter to the effect, and then results a Vested Interest, which is an interest of eating and drinking, in consideration of promulgating a certain idea without reference to the question, whether that idea is correct or not, or whether mankind would voluntarily pay in perpetuity for the promulgation of those ideas. So, in Henry the Eighth's time, the religious ideas were Roman Catholic, which were Vested Interests, supported by the material elements, broad-lands, and tithes;

but that very intelligent monarch changed the religional ideas of the country, but being well aware that an idea left to its own merits is much like a dissolving view, transferred to the Protestant religion the solid organic elements, and with them away went the Roman Catholic religion.

Not that mankind will not pay for an idea, which is an effect of belief, they paid for Joanna Southcot, they have paid for turning tables, any marvellous idea will find remuneration for a time; but as long as the idea does not become a vested interest by being firmly united with organic matter, or food and clothing, it rests on its own merits, and is permanent or not, according to the advancing intellect of man.

So Slavery is a vested interest, commenced in man's rudest and most ignorent state, when right was measured by power; now the idea of one man belonging body and intellect to another, like a horse, becomes a vested interest by the profit made between the cost of maintaining the slave, and the amount made by his labour, and by the Government of the country making that profit legal, and taking charge of that vested interest, uniting all the powers of the nation to defend it.

Vested interests have a great affection for absolute Governments, or the absolute portions of a Government, and those Governments have a great affection for vested interests; both parties feel themselves very weak in public estimation, so they are like ivy and an old wall, each tries to keep up the other.

Vested interests pride themselves very much

on their antiquity and respectability, old as the pyramids, and should be as immovable; they are also on highly intimate terms with, and are protected by, the nobility and gentry, when the throne is obliged to countenance them.

They have a great horror of the middle classes whenever those classes examine into things, and detest, "con tutto cuore," all reformers, and such people as are given to political anatomy, dissecting the subject, separating the idea or effect from the organic matter, or money paid for it, putting them in the scales, and arguing as they would with a shopkeeper, that if the article is worth nothing now, (whatever it might have been worth a hundred years ago,) they ought not to pay anything for it.

The Pope's temporal power is an effect joined to organic matter. Years and years ago some devout sovereigns, with the very sensible idea of securing their entry into heaven, made a present to the Popes in perpetuity, of what they then held temporarily, namely, the whole lands and inhabitants of a goodly part of Italy, giving the said Pope and his successors the power absolute to tax the goods, imprison the persons, and otherwise act as they thought proper with the said lands and persons. Those lands, and the right of governing and taxing those persons, and dictating to them what they should believe, and what they should not believe, on pain of imprisonment and torture, constituted a *Vested interest.*

The Italians want to separate the organic matter from the idea; they want to leave the bare idea to

the Pope, and keep their personal liberties and property in their own hands. The Pope argues as every other person deriving an emolument from a vested interest would do; just as an American slave-owner would do; that these people, these lands, goods and chattels, having become his property by descent in law, he is justified in holding them.

Into this comedy or drama steps Louis Napoleon, who wanted an effect produced on public opinion to secure his election as president and emperor; and then pledged himself to secure the vested interests of the church, if the church would help him as regarded the personal vested interests which he wished to secure as emperor.

The church did her part of the bargain, and now looks to him to do his. The Italians, meanwhile, say that they don't see what right Louis Napoleon had to give pledges involving their persons and property for his own private ends, while the English government, which protects its own vested interests as carefully as a hen does her chickens, puts its hands before its face, and looking through its fingers, as a lady does when she is shocked, cries, "Shame!"

ASTRONOMY.

Pat said, "A blessing on the man who invented sleep, for it covers a man all over like a blanket." I say (when I receive my dividends), a blessing on the man who invented the National Debt, for it is not only a blanket, but breakfast, dinner, and supper, and warmth and sunshine too; for if there is not sun enough in London, you can go to Naples.

Besides, national debt is different from the usual products of nature, in that it is something solid produced out of nothing. When I was in Malta, my banker, a merchant there, told me he had a very old ship, good for nothing—it was going to be broken up. The English wanted hay at Sebastopol; he offered his ship at a good price per month, and it was accepted. For months he heard nothing about her, and considering she had gone to the bottom, troubled his head no more about her; when one day he had a letter from the captain with a very large remittance, and the ship had been sent to Constantinople for charcoal or something, and had been lying there with it. Now, the old ship was worth nothing; the rats had declined residing in her, rent free, yet she is now represented by, and changed into, £5,000 consols, radiating £150 per annum.

But we can't be left alone to have anything good to ourselves, and the French have been trying to equal us in that as in other manufac-

tures; and now the Americans, that go-a-head people, *par excellence*, are bringing up leeway fast, and if we don't look out, will soon show a national debt that will make us feel ashamed of our insignificance.

National debt enables a man to turn his thoughts to what he pleases, instead of being obliged to spend his time in buying and selling; nay, even broad lands do not produce the same liberty of thought, for they may be overflowed as Lincolnshire; or else the mind is occupied with fat cattle; or, if a man has a manager, he may be chiselled as Laban was by Jacob, or his manager may be shot as in Ireland.

Now, man, when he becomes like a lily of the field, and toils not, but has all things provided for him, and has run over all the world, or over all the International Exhibition, and been down into mines, and up in a balloon, and calculated all wars, which now resolve themselves into so many men killed (expended, a French Marshal would say,) and so much national debt as the permanent monument of this or that war. Having seen all this, not like Solomon, who said there was nothing new under the sun, but having seen all the old and all the new patent machines, and all the old queer animals which lived in the world formerly, and all the new queer animals which live in it now—really, after all this, man wants to get out of the world, and see what is passing in space.

Astronomy is divided into two categories—Electricity, giving orbs called suns; and receiving

orbs called planets and comets. We do not know accurately what the suns are composed of—some say a nucleus of metals in combustion.

What the planets and comets are made of we know pretty well, as they are, in infinite variety, composed of the same elements as our earth, but in such varied proportions that there is every imaginable sort—one is all vapour, another all water with a smaller or larger nucleus of land in the centre, another all land, or metallic.

As to how they came there, whether they were, as some authors say, burning masses blown out of the sun, we don't know; but one thing we do know, they are all composed of primary elements, and these primary elements have pretty certainly the same qualities as the same elements on our earth, and when acted on by the sun will produce vegetable and animal life, according to their heat, and the proportions of their elements, just as our earth has kept on continually changing the nature of its animal and vegetable productions correspondently with the temperature and the nature of the gases in solution in the atmosphere.

Thus far, and that in one earth or planet, there should be now all plants, in another all fishes, in another all ichthyosauri, and analogous animals, in another elephants and horses, or animals of any shape with eyes, noses, legs, arms, or wings; all this is too probable to admit of a philosophical denial, but the interesting astronomical question is this—come with me imaginatively into space, let pass imaginatively 1,000 or 2,000 years, look at our earth, every bit of sea and land have been

converted by one animal to his own use. The land bears food only for him; the only animals suffered to live are those he eats, or which contribute to his wants; the sea produces fish only for him.

The animal himself is a mere compound of gases and metals, as all other animals are, acted on by the electricity from the sun: in fact, an animal born of the sun and the earth, and this animal produces an effect, which is movable, educatable intellect, entirely different from all other animals; for whereas every other animal only occupies its time in eating, and drinking, and other requirements of its species, this animal makes eating and drinking a secondary consideration, occupying its time with the investigation of he laws of nature.

That in the scheme of universal intelligence this result has been forecalculated and determined, there is the most absolute certainty; the consummate intelligence which fashions man, from the moment of his conception, and continues developing his brain until it is equal to the comprehension of the universe, forbids the thought of absolute chance, or any chance.

The question, then, for Astronomy to solve is this: Is educated intellect the end? In all the spheres is there the ultimate tendency to it?

This earth began with plants, then shells, then reptiles of the lowest class, then more and more intellectual existences, ending in a highly intellectual being.

Is it so through all space? Why not? Is the

light given out by other suns powerless? Not likely.

Have the elements of which those bodies are composed no qualities? Does the oxygen not combine with nitrogen and form air? Does the hydrogen not combine with oxygen and form water? Does the water not freeze? or become steam? or clouds or rain? Of course they all do. If no higher intelligence had been developed on the earth than precisely that of satisfying the wants of the body, as the monkeys do, we could not reason on the universality of educated intellect; nor if educated intellect caused no particular change in the animal and vegetable productions of the sphere we are in, could we enlarge upon a great and manifest design in the production of it;—but when we see a globe of 25,000 miles circumference totally converted to the uses of educated intellect—as it will be when the earth is covered with railroads, planted entirely with vegetables for its use and that of the animals it eats, and the population (necessarily) everywhere arrived at that amount, which it is, even now, comparatively in England; and when the enormously increased powers of examining and utilizing all the forces of nature are so immensely developed as they will be by them, we are justified in the same reasoning which would hold good of a man—viz., this creature takes forty years to arrive at the perfection of those powers which distinguish him from lower animals, and his product then is Intellect.

So, this earth takes ——— years to arrive at

producing man, passing through a chain of animated beings, each series more perfectly developed than the preceding, ending in man—man now in process of education. The end, aim, and ultimate production of the powers of nature is cultivated intellect, and has been always so—boundless as space, and eternal as eternity.

Whether the earth were blown off from the sun, or whether it were once a comet, and have now settled down to a more regular course of life, is not of the slightest importance; what we are we have been from eternity—that is, certain simple elements, capable by certain combinations of producing certain effects, and to go on repeating them everlastingly.

PRIVATE LIFE.

It is very pleasant to belong to an old corporation, the common people's hands involuntarily go to their hats, when they see you. You visit the top families; your wife has an air of exclusiveness and superiority about her.

You are with the Church and State, and you feel that you are the Church and State in your circle.

You are the speaker of the deputation which went up to represent to the minister, (accompanied by the M.P.) the true interests of the place.

The *Times* records the minister's cordial reception of you, and his promises to bring your representations before his colleagues.

Your son has a snug thing or two in the gift of the corporation. Young Farquhar, who is courting your daughter, is of a very aristocratic family, and would not be allowed to think of the match if you were not so highly respectable.

Your wife is reckoning on the gratification of being enabled to number Lady —— and the Countess —— among her visiting acquaintances.

You are on the most cordial terms with the clergyman and his very amiable family; the other day he told you confidentially that he did not think there was a glass of port in the city equal to that 1847 you set before him. He has a son growing up, a highly intelligent promising youth, the corporation may have some snug thing falling

in by and bye, that your interest would secure for him.

It is true that when your old and very intimate friend, Robinson, who went to America and thence to Australia, and returned rather warm, but who was your great crony when the balance at your bankers was different; in fact, quite the other side of the book to what it is now; when, indeed, a note from the said banker, asking you to call on him, threw you into a cold perspiration; and when your wife (women are angels!) denied herself every extra, and wore dresses that it would shock her nerves to look at now—

When, I say, Robinson, who is a great friend of your wife, drops in to dinner (he would be affronted if you invited him formally), and after dinner, when your wife, after staying twice as long as she does when anybody else is there, has gone to the drawing room, previously hoping you won't be *very* long, pulls out his case of Havannahs, and putting himself as much at ease as though the whole universe belonged to him, remarked to you that that last corporation job was rather barefaced; you admit at once that it was, but ——— was your friend, and you could not oppose him. And the charity trusts have been perverted for years from the poor to the rich.

True, you reply, but most of that was done before my time.

And the corporation lands have been let out at long leases at far less than their value.

And the old rights of the corporation granted in the year of Edward I. cripple the trade.

And that your valued friend the clergyman either puts you to sleep, or takes up some dogma, which, to speak in the mildest manner, you think he might have left alone.

Yes, you say, my dear Robinson, you are perfectly right, I am quite of your opinion, but what can I do? the corporation is like the Pope, its motto must be "non possumus."

If the giving up one point to the Brights and the Cobdens, and all that set of fellows would content them, we would gladly do it; but if we give up one point—(give me another of your cigars, they are excellent)—if we give up one point, we should be like a smuggler when the Custom-house officer finds the first bit of contraband—they would unpack the whole trunk and confiscate *all.*

My social position, my wife's position, my daughter's marriage, my son's appointment, all depend, you see, my dear Robinson, on the corporation being supported through thick and thin.

I see it clearly, says Robinson; let us go upstairs to the ladies and have a little music.

TIME IS MONEY.

Mercantile proverb of the olden time—very senseless.—What is money? Money is like the rays of the sun, which produce no effect till they touch the earth; so money until exchanged for something else is valueless.

It is the something which is valuable, not the money.—What then is valuable? Food and Clothing. How rich the buffaloes are, on the boundless prairie!

Diamonds, dresses, carriages, horses, wine, what does all that represent? Standing in society—man and woman's vanity—flattered, small soap bubbles.

Time well employed is intelligence; uselessly employed it is like the sun's rays on the desert. The hours which you spend with stupid people, or reading a stupid book, or listening to a stupid discourse, are real losses of time, but the proverb throws no light on that.

Time is money—the greatest men have had none; the wisest in general are very scantily supplied, yet in short time, they compressed acts which outlive time itself, and make money appear dross.

Alter the proverb; and instead of "time is money" say "time well employed is intelligence." Have you good sense? little money will suffice for you, much will not incommode you.

If you have not, the more money you have the more likely you are to make a goose of yourself. The world corrects the poor man, but flatters the rich man in his folly.

To think wrong on a subject is time lost, whether money is lost or not by it—It's like going out of your road, not only is the time lost going—but getting back again.

RELIGION.

Perhaps the two most durable religions are the Roman Catholic and the Hindoo, because they are both founded on confession, and therefore exercise a powerful control on the mind.

I was very intimate with a high caste Brahmin. He was very unhappy, and had sustained considerable losses, had a serious quarrel with his elder brother, which in India is very painful, as the eldest son, by the Hindoo religion, succeeds, on the death of the father, to his powers and responsibilities. His wife was ill, and himself suffering. He talked these things over with me.

"What will you do?" said I. "I will go to my Goru."

I then learnt that every Hindoo of a certain station has a particular priest, who is his Goru. Through life, in all cases of doubt and difficulty, he may and can go and consult his Goru. I saw him after he had been to his Goru.

"Well, what did he tell you?"

"He told me that I must not give way; that these troubles always happen in the world; that I must bear it patiently, &c."

This, though it does not amount to a confession of sins, and absolution, gives a religion a great hold on a man.

That man would not abandon his religion, his Goru forms a part of it.

The hold which the confessional has on the uneducated is so absolute, and causes people to believe implicitly such strange things, that were it not that we ourselves have burnt or drowned poor innocent women as witches, we could not realize it; but when we consider that the little girl sees her mother confess, and that what the parent does is sanctified in the eyes of the child, and that the impressions made on a child's brain are so vivid that we all of us recollect clearly the incidents of our childhood, while those of middle life pass away, then we can comprehend clearly that as the clay is moulded while it is wet, so the pottery remains after it is burnt. And as the child, so the man.

Thus, the great hold of any religion consists in its being deeply and firmly inculcated on the child's brain, whilst the child is in a state of ignorance, and perfectly unable to form any discriminative opinion on the subject.

So an ignorant people believe in the pretended direct communication from the Deity to any one they have confidence in; so the Indians, when Columbus foretold the eclipse, believed he had a direct divine communication.

Far different is it, however, with the enlightened and well-educated Hindoo. The miracles of the Hindoo religion are as great as those of the Christian, but more comprehensible, as they do not consist of feats absolutely against the laws of chemistry and gravity, but merely in a hundred times superhuman feats; such as that one of their gods took a leap of 160 miles, from Ceylon to the Madras

coast, with other very extraordinary and unrelateable feats, somewhat analogous to the actions of the gods, as narrated in Homer.

Now the result of the introduction of Missionaries of the Christian religion has been that the Hindoo (educated) gives up his belief in the existence of his own gods and their miracles, but equally firmly refuses to believe the miracles of the Christian religion, and so he becomes a Vedant—that is, a Deist.

——— was very much surprised when I told him the Roman Catholic religion and the Protestant were the same thing; however, he ended by being of my opinion, remarking, "Yes, the difference is in the quantity, but not in the quality."

Before, however, I attempt to simplify religion, I wish to separate entirely religion from morality.

I appeal to the ministers of every sect of religion whether their sect is not equally moral with any other one; the morality, therefore, has nothing to do with it.

Besides, I have been all over the world, except the poles, and the centres of Africa and Australia, and I seriously declare I never met with any other than honorable and honest men and virtuous women. They have assured me so themselves, and they ought to know best; and if I have at any time ventured to doubt on the subject, they have assured me that those eccentricities formed no part of their real character, but were produced by the force of events and "unguarded moments." The explanation settles

the point as regards morality, and we will now pass to religion.

All religions have their dissenters; the Turkish and Hindoo just as the Christian.

The English Protestant established Church has thirty-nine Articles. I do not know how many the Roman Catholic has, but a great many more, as Martin Luther dissented on account of a number of Articles he did not believe.

We will, however, suppose the number of articles to be believed by a sound Roman Catholic to be 100

Some Roman Catholic Dissenters will lop off 10 articles, leaving 90

Others 80

Till we come to the English Church . . 39

Some English clergymen object to some of these, say they believe 29

Then we come to the different dissenting religions, each of which lops off an article or two, till we arrive at the great fundamental article of all religions—

THERE IS A GOD.

Now the man who believes this fundamental article can give better evidence of the reasonableness of his religion than all the others; he cannot give ocular evidence, such as—

There is a watch and that is the maker, for I saw him make it. But he can give circumstantial evidence—

There is a watch, and as the watch could not make itself, it must have had a maker.

All the other beliefs, from 2 to 100, have this one thing in common, they cannot be proved—if they could, there would not be any dissenters.

Therefore, whether a man believes twenty articles which cannot be proved, or forty articles which cannot be proved, there is no difference in the quality of the religion; in the quantity, Yes—as the one believes twenty articles more than the other—but in the quality, No.

Those, therefore, who find fault with a man for what he believes, should first put the question to themselves—

Can I prove what I believe? And it is as unreasonable to find fault with a man for the number of articles or miracles he can believe, as for the number of oysters he can swallow.

"No! No! No!" said the Marchioness, (to whom occasionally in the evening, I read over portions of my manuscript,) "leave out the oysters; that's always your way, in the midst of the most serious discussion you spoil it all with some droll remark."

"Well, my dear madam," said I, "how can I help it; didn't Monsignor yesterday evening say, he could tell any one's character from his handwriting, and when I gave him my scrawl didn't he tell me such things, that I thought him more fit to be made a conjuror, than a Cardinal; and amongst others that I had an irrepressible tendency to look at the ludicrous side of every thing; and besides, the oysters are not so bad a simile, for it is said that religion must be inwardly digested, and so must the oysters. In early life Martin Luther

inwardly digested all the 100 articles of the Roman Catholic religion, whereas at a later period he found he could not swallow half the quantity.

"And as for my soul, madam, that you are always tormenting me about; I beg to say that I am much more liberal to my soul than you are to yours; for whereas you think that your soul commenced with the first germs of the formation of your body, I think that my soul has existed from all eternity and will exist to all eternity—subscribing this declaration in the ordinary way of accounts current, 'Errors and omissions excepted.'

"And since you dare me to it, I tell you and will prove to you that the religion of the world has not changed at all, and we believe now as our forefathers believed 2,500 years ago, and 5,000, for what I know; and this remark applies, not to a few, but to the mass; not to thousands, but to tens of thousands; not to millions, but to tens of millions of human beings in Italy, Spain, Austria, Ireland and elsewhere.

"Come with me to that church two miles out of Naples, (there are hundreds of the same in Italy and Spain,)—you see those walls, as high as the highest ladder can reach, are covered with pictures of ships in distress, bits of cables, silver ornaments, and all sorts of things: with details to nearly all, how the barque was in distress, and how the captain vowed that if the Saints would interfere, stop the storm, and save the ship, he would make a pilgrimage and offering to his church; and how the storm stopped and the ship

was saved. Here was a saint which some Pope made, invested with the power of suspending and reversing all the laws of gravity and force. Now let us go back, 2,500 years ago—the ship was in danger, the mariners prayed to Neptune or Thetis the ship was saved, and he hung up the trophies in the temple of Neptune.

"And that lady who could not let her lodgings, and went to the saint's church now in Rome, who patronizes lodginghouse keepers, and on her return found a person waiting for her, who took her lodgings, whereby the saint interfered to take the bread out of another person's mouth; or else the saint created a person on purpose to take the lodging. I think we beat the old Romans. You might as well have a saint to help the grocer to make half a pound of sugar weigh a pound.

"What does it all amount to? Why, to a supposed agency which upsets and reverses all the laws of gravity, cohesion, chemistry and force.

"Well, and what took place 2,500 years ago? Jupiter, Juno, Minerva, Apollo and Co., were sitting in heaven, and the mortals were fighting on earth. Minerva comes down from heaven, turns aside arrows and javelins from her favorite hero, who gains the battle, and erects a temple to her on the spot.

"Well, and what took place six or eight months ago? The Holy Virgin came down from heaven, (you read it in all the papers,) and made them dig up a muddy place, water came out, and all the sick went there, drank, and were cured; the bishop examined the matter, declared it all per-

fectly true, and certified moreover that the water did not contain any specific curative property whatever, so that the cases were miracles, that is, against the laws of nature; and a chapel is now built upon the spot, and thousands are going there and getting cured.

"And hadn't they the Styx and the Infernal Regions, and ghosts wandering there 2,500 years ago? and havn't you the same thing now, with the slight addition of fire and brimstone?

"The business carried on is the same, it is only the name of the firm that is changed.

"These remarks, my dear Madame, do not apply to your religion. I am only talking of the Turks and the Hindoos, and the other ignorant people who differ from you in opinion."

We spend over one hundred millions yearly in Great Britain on religion, and the Sunday is the happiest day of the week, and the lady is proud of her husband at Church, and the poor servant girl has her Sunday out, and meets her sweetheart, or "the young man she keeps company with;" and the tired-out artizan lies in bed half the day, and talks politics, or reform, or Exhibition, in the public-house in the evening over a quiet pipe: and all get up fresh and new on Monday morning.

But could'nt we have all that, and miracles too, without upsetting the laws of nature?

Put a diamond into the fire and it remains solid—put iron, and it becomes liquid—put ice, and it is turned into steam; and the sun and the rain make the grass grow; diminish the quantity

of phosphorus in a man, and he becomes an imbecile; add to it, and he becomes a maniac; and this, by the innate qualities possessed by an organic element, which looks like a bit of tallow. Are not these (and there are thousands of other secrets yet hidden in nature,) miraculous enough, without your calling in saints, and subverting all the laws of the universe? Are you so wise, or the Creator so foolish, that you can hint to him how the elements should act?

John Bull, I have a great regard for you; over a bottle of wine and a cigar you see things in their true light, and you don't mind saying that a job is a job.

The Japanese are as clever in their odd way, and the French shawl-patterns are prettier; but for solid, good work, and powerful machinery, you beat them all. Show you how money is to be got, and you can reason as well as Euclid.

But it's all confined to your business, John; your wife is the wife of your bed, and the wife of your dinner, but not the wife of your head; and why? I'll tell you, John; all the week she is taking care of the house and children, and dutifully making you comfortable when you come home.

And Sunday morning she puts on her best dress and prettiest bonnet, and goes to church. When she comes back I ask her, "Well, what sort of a sermon had you?"

As to asking about the rest of the service, I might as well ask her whether she listened particularly to the strokes of the engine when she last travelled by rail.

However, she answers me rather reluctantly—

"It was a very good sermon."

"Good sermon! well but what was it about?"

"Well, he said we ought to love our neighbour as ourselves, and all that."

Or perhaps his sermon was about the witch of Endor.

"Well, but Mrs. Bull, you have been now passing the intellectual part of the day, you will dine and go a walk with Mr. Bull, and hear the children read the bible; but how is your mind improved by this two hours, this valuable two hours, for the rest of the week you have no spare time?"

"Mr. Jones, what can I do? I can't sit at home all day—I can't help it if the sermon is incomprehensible, or the same thing over and over again; I feel I have done my duty.

Now, John, that woman, your wife, Mrs. Bull, would like to be intellectual; housekeeping is very stupid work; your intelligence is sharpened in the city, but hers is the dull routine of "What shall I get for dinner?" or the equally dull visit of Mrs. Smith, to tell her that two of the children have colds. And when to a dull week you add a dull Sunday, you by degrees cramp an intellectual woman into a mere housekeeper, just as Chinese women cramp their feet with wooden shoes.

I would tell you, John, how to change all that; and your wife shall go to church in silks and satins, and you shall be glad to accompany her, instead of going as you do now like a dog to

be whipped, and she shall return home radiant with intelligence; and you shall have no dissenters.

Make Faraday, and Cobden, and Brougham Archbishops; (I for my part would not object to Palmerston on the bench, though as Monsignor would say, he has the habit of looking at things on the lively side:) and let them appoint clergymen of their own stamp, throughout the country. Let the church service be a continued teaching of the secrets, (call them miracles, if you please,) of nature and progress of social science, and what fills the universe, and what passed during eternity. And let your children read, and learn while they are children such truths only as the experience of age can ratify; and then you'll find Mrs. Bull a much more sociable and agreeable companion than she now is to you. It's not her fault, poor woman; what can she talk with you about? and women must talk, and you don't want to hear about the house-keeping, enough to pay the bills; and you know you never now mention the sermon to her or she to you, from January to December; and so although you really love and esteem your wife, mutual topics of conversation become quite commonplace, and you are both of you heartily glad when I drop in to change the monotony of the evening.

One religion certainly may be better than another: the king of Dahomey's religion, part of which is the slaughter of thousands of human beings now and then, is not so good as a religion which inculcates letting them live, and educating

them. But we did just as bad or worse in Europe some time ago, for we added torture to murder, so perhaps the king of Dahomey may improve by and bye.

There is a good deal of talk in the Commons, about the persecution for religion in Spain. When I was in Cadiz, my banker used to come and take a cigar with me after dinner; and once apropos to something said, "Probably my ideas on religion are as liberal as yours." So we talked it over, and he told me the idea or the march of government in Spain on that subject, as follows:

"You may believe whatever you please, the government does not care a straw what you believe, but the sale of religion, that is, the emolument from churches, preaching, etc., is all confined to the Roman Catholic religion, no other is allowed to 'debiter' as the French say."

We may think that wrong, but we have plenty of furniture at home which wants mending, without troubling ourselves with other people's tables and chairs.

Our enlightened House of Commons, who the other day refused to pass an act to enable a man who has once enlisted as a clergyman, to get his living in any other way—might do a little more if it was proposed to them in the cause of the established religion. I say *enlisted*, because the different religions are but armies, dressed in black instead of red. The same discipline, obedience to orders and drill, are expected from the officers of religion, as from the officers of the army. Nay, more, for the head of the army only expects

exact discipline, but the heads of the clerical army not only expect exact discipline, but order their officers what they shall believe and what not. A thing was not believed yesterday—a Bull is issued to-day. The head of the church is infallible—the officers are expected to believe it firmly; and as for punishments, it was once the torture and the stake, it is now the prosecution and destitution.

The public truly are the sheep, and the shepherds fleece them. If they gave them only wholesome pasture, the wool they take would not be of so much consequence.

For instance, in Rome, a man's will, leaving his property to his legal heirs, must have two witnesses; but, if he leaves it to the Church, the will is valid without a witness; or he may leave his property to his own soul, (*alla mia anima,*) and the will is perfectly good. The church is bound to have the requisite number of masses celebrated, that his soul may have the least possible trouble in passing through purgatory to heaven. Of course the church being guardians of his soul, become also guardians of his property. I knew a worthy man in Spain, whose only relation (an aunt) left every shilling of her property (about £8,000) to the church, for the benefit of her soul.

Train up a child in the way it should go; and if the church has the sole education of the children, of course it trains them up to suit its own interests.

The best religion is that which stands the test

of the accumulated experience which age, reflection, reading, and intercourse with the world bring to bear on it: and the worst is that which is most liable to be shaken by doubts and uncertainties, as increasing age and experience render the judgment more independent.

MAN AND WOMAN.

Little boys don't like little girls; they look on them as inferior creatures, and repel their advances.

But when the young gentleman has done his schooling, a partial change takes place, and "she is a pretty girl." Time rolls on, and nature lights those mysterious fires, without which the world would be only chemical, and not animal or vegetable.

The young lady ripens like a peach; and the young gentleman contemplates with satisfaction his budding moustache.

Now begins the season of admiration, imagination, vanity, daring; all are called into action.

If her horse would only run away with her (as in the last novel,) and he saved her from a frightful death by falling over a precipice 500 feet deep: or if the house would take fire, she in her night-dress at the window, he rushes upstairs and rescues her, the mother faints, the father (an M. P. of immense property) presses his hand, and says, "I can never repay you."

Time's locomotive arrives at another station, whence two roads branch off. Reader, you have travelled, or will travel, one or both; and now comes the question whether you are a planet or a comet. If fate has destined you to be a planet, to go through the phases of life as regularly as the earth performs her gyrations, and spring

blossoms and autumn bears fruits, you will slide quietly from the visiting to the esteem, from the esteem to the friendship, from friendship to affection. The young lady's mamma has long settled that your proposals shall be accepted; the father is proud of you for a son-in-law; the lawyer draws the settlements; the parson ties the knot; and you are off to Geneva or Naples, to lead the life of a bee, or rather of a retired bee, who has nothing to do but to eat honey.

The journey of life goes on; your avocation is successful; your wife makes you a little annual present; she engaged in cares of house and visiting —you acquiring riches and consideration: your dinners and wines are good, your friends are many; and so you travel on in time's first-class locomotive, until you arrive at that station with which unfortunately neither the Electric Telegraph nor the Post Office has as yet established any communication, to enable you to inform your numerous friends and sorrowing family of the nature of your new abode. This is the planet's life,—the summers pleasantly warm, the winters moderately cold.

But as in the inscrutable ways of Providence there are planets and comets; and the comet, instead of warming himself comfortably as the earth does in the sun's rays, and gyrating regularly and reasonably, rushes with headlong speed into the fires of the sun, gets pierced through and through with consuming fire, and then bounds off into measureless space, where he gets cured of his wounds and scalds, again, heedless wretch,

to seek the same fate and suffer the same punishment—

If, then, fate has made you a comet, you will see much more of the interior of the machinery of that loveliest of created beings—"Woman"—radiant as joy itself, sensible, acute, devoted, constant, the brightest ornament in prosperity, the truest friend in adversity; sharing your sorrows and brightening your joys.

My Uncle Toby's sheet of foolscap paper would not suffice to catalogue half her excellencies—

Truly she is a Garden of Eden.

But in that garden may be the seeds of a plant worse than the Upas tree; quicker of growth than the bean of Jack the Giant-killer, nipping all her virtues worse than the potato disease, or the vine oïdium.

That plant is Jealousy.

When that springs up, the virtues and graces fly like affrighted ghosts before an avenging fate.

A casual innocent remark is enough.

The knife and fork are laid down at dinner—nor bit nor drop again pass those lips. That small black cloud betokens a tempest. I have seen a tornado level large trees, and strip the leaves off the yielding willow; I have seen the sails blown into pieces the size of towels, each detaching piece going off with the report of a gun.

You have attempted to explain; explain indeed—try to put fire out with oil—No! not

that—try to put fire out with gunpowder, and you will see something like trying to explain.

Now begins a scene to which Shakespeare is tame.

The face assumes a Medusa look; around the eyes varying shades of yellow, with edges of greenish hue appear, and seem to move under the skin.

I have seen a billiard table ruined, doors burst open, valuable papers torn, the servants pale and trembling, and the furniture of the room resembling the state of the earth the day before the Creation.

I thought the pier-glass and buhl clock would follow, but there was a pause.

You ask, Maria, if I have really seen all this; Oh yes! and this picture is as mild as England's sun compared with Africa's burning zone: for woman's feelings are convertible; she may be all love, so intense that she cannot bear the beloved to be out of her sight; then all jealousy, and woe betide the object of it!

Carried away by these feelings, like steam when it bursts a boiler, she becomes reckless, and her own life or that of any one else counts for nothing.

You read of an event—jumping into a river, or off the monument; or of a murder; that is like entering a theatre as the drop-scene is falling —you did not see the other acts of the piece— the love—the jealousy—the delirium—the fury —the despair.)

You think, reader, you would have stopped all

this, perhaps; and perhaps there might have been murder, besides, you would have spoiled all.

There are two powers in nature—force and patience; patience is the stronger.

Take the easiest arm-chair and a footstool, and light a cigar, and be quiet as in the finest scene in an opera, and don't think for a moment of using force, unless you see that something serious is going to happen.

At last there is a pause—be quiet—the voice falters, be quiet as death—the storm is breaking —a few minutes more you will hear sobs, then tears and sobs—then protestations of such love that life without you would not be for an instant endurable———and then—you may go to bed. A woman is never so intensely affectionate as when she has been doing some mischief.

If you are mean enough to hint that breaking furniture is a curious way of showing love, you will be told that you know she loves you more than her own life; and that you ought not to try her temper.

You may be rather puzzled at the last phrase, seeing that you have been as innocent of just cause of blame as one of the marble statues in Westminster Abbey.

However, the storm is past, the sun shines, and if the next morning you call over Uncle Toby's list of all the virtues, you will not find one wanting.

You will also get a complete education in jewellery; jewels of all sorts are like babies—for whereas the very first thing a new baby does in

coming into the world is to put his little brother or sister's nose out of joint; so, however elegant, chaste, and fashionable any article of jewellery may have been a month ago when it was bought, it immediately loses its qualities by the side of a new article.

Then dresses again; what a study for you if you are a philosopher, or a medical man, for ladies' dresses have bodies, and like their fair wearers, have faults, particularly obstinacy; they are liable also to particular complaints, for which Graham's medicine gives no remedy.

They suffer also under confinement; I have known a whole wardrobe of beautiful silk dresses which had been shut up during a three month's trip to Baden-Baden, taken by a kind of endemic, which ran through every one of them. I ventured to ask in a medico-philosophic tone of voice, "What was the matter with them ?"

"They won't meet, not one of them!"

Experience told me that a galloping consumption was not more fatal. With all their faults they were once handsome and good, and it is to be hoped that they took warning, and were not so obstinate in their next state of existence.

Then again, you will learn all about ladies' horses and saddles, opera boxes, and travelling trunks; for although you may try your wife by the laws of gravity, and find she weighs 40 lbs. less than you do, or you may calculate the quantity of exterior surface, as the government measures a ship, from the bow to the stern, and find that the cubic contents are less than your

own body—still, her clothing requires ten times the quantity of trunks yours does, not one of which can by any possibility be dispensed with.

Again, you may have an old, intimate, and long-tried friend, into whose hands you would cheerfully entrust your property or your life; but if you entrust your wife, or any precious commodity fulfilling the outward and visible attributes of that invaluable jewel, to your friend for five minutes only, you may as well have asked a bee to take care of a pot of honey for you. Five minutes did I say? five seconds—too long. Take a bit of time, and chop it up until you reduce it to the length of an "unguarded moment," and that is too long.

If you don't believe to the letter every syllable I write—ask Sir Cresswell Cresswell.

Reader, whether we may be planets or comets, nature drives us with a double set of reins perfectly distinct, though sometimes they get so twisted that we mistake one for the other.

Or let us say that we have two distinct engines at work in us. The one in the head. Thought, judgment, appreciation of the wonders and secrets of art and nature, calmness, tranquillity, friendship and esteem, distinguish this.

The other engine, or motive power, is situated in the heart. I don't like disputes. Novel writers say so. If you doubt it, take Bell's Anatomy and place it where you like.

Highly necessary and indispensable to the world is that engine, and accordingly nature brings it into full operation before the furniture of the

head is all in its place. Under its influence you have suffered like a martyr or toiled like a slave.

But when the fires of that engine begin to slacken, when like a sagacious alderman, you can appreciate and enjoy your plate of turtle soup without stuffing so as to bring on an indigestion; when like an exquisite judge of pictures you can find a pleasure in admiring and criticising them, without longing to put them all in your own gallery: when in fact, the head is master, and the heart (?) only the humble servant, if you chance to contemplate one of nature's loveliest works, of whom Burns said:

> "Her prentis' han' she tried on man,
> "And then she made the lasses—o"

you may chance to think of the heart-burnings, the violences, the jewels, the dresses, the operas, and lastly on your old and valued friend, who became like the bee with the honey.

First you will feel a slight shudder, as the mariner does when he sees a rock a-head, then an internal chuckle, as you mentally exclaim:

"Thank God! she is—not—mine."

CREATION.

If you ask a religiously educated child or youth about the creation of the world, he will tell you that it was created some six thousand years ago, that it was created exactly as it is now; that every plant was created exactly as it is now; that every animal was created exactly in the shape it is now, and that it could not be otherwise, because all the animals were sent into Noah's Ark in the deluge, in order to preserve the species which otherwise would have been lost.

Further, that the first man and woman were created perfect in beauty and intellect.

The child would reason naturally; during its life it has seen no change.

If you ask a geologist, he will tell you the earth was a burning mass of matter millions of years ago, and has been cooling down ever since. That at incalculable intervals vegetable and animal life have appeared, ever changing, and not one of the earliest resembling the plants and animals now existing.

If you ask a chemist, he will tell you that what is now called the atmosphere must have been, untold ages ago, a very different atmosphere, that it must have been highly charged with carbonic acid, and other gases and vapours, such as iodine, bromine, mercury, &c., which at certain temperatures volatilize, and which, during the cooling, have been gradually absorbed by vege-

tables and solidified, as coal, limestone, &c., &c., and that the more the earth cools down the less of all these substances can remain in the atmosphere, which therefore, tends to become simply hydrogen, saturated with nitrogen.

That therefore, whatever power caused the creation, or organization of the vegetable and animal world, that power was in strict accordance with, or itself fixed the laws of chemistry; that while the earth was hot and wet, and the atmosphere loaded with carbonic acid, phosphorus and other substances, which are the most stimulant nutriment for plants, vegetation was thousandfold in size and quantity to the present time; and that the animals which then existed were such only as could breathe and live under the chemical conditions of that atmosphere, and that as those chemical conditions changed, so the species of animals changed to suit those conditions: and the proof of it is that if civilized man goes to live in the hot swamps of the tropics, the vapours from the earth and swamp bring on fever and exterminate him.

That chemically man is an animal requiring the purest atmosphere, is proved by the fact that the expeditions up the rivers in Africa, where the hot and moist atmosphere is loaded with other gases than hydrogen and nitrogen, or pure air, have brought on the death of most of the explorers; while in those to the North Pole, where the atmosphere is free from heavy gases, and from other vapours, scarcely a man has died, when through sufficient clothing he has been

protected from the loss of caloric, and enabled by suitable food to keep the temperature of the blood at 98.

That, taken as a whole, the highest intelligences are found in the temperate zones, where two chemical conditions exist: 1st, the man matures more slowly: 2nd, the air is more pure.

Cycles of time have passed, but as the process of the earth's cooling is not 1 to 1,000 to what it was at the time of the coal-fields formation, and as every mile in depth retards the process immensely, we may infer that innumerable years will pass, before any such change can take place as would affect the existence of the human species.

In fact, we shall not be far off in concluding that the earth has gone through a period of gestation, and that the product intellect, developed by education, which is to cover and absorb the whole of it, is only just born.

And more than this, that among the countless myriads of planets or earths revolving round the unnumbered suns, we see there are those which are much our seniors, and where all our sciences, arts, and discoveries were practised cycles of time ago; and if some of the inhabitants of those planets could pay us a visit, (as the Japanese Ambassadors do,) they would astonish us as much by the improvements they would suggest, as we should astonish Cheops or the other worthies who were buried in the pyramids, if we could revivify them, and take them over the Exhibition, and back to Egypt by rail and steam.

On Infinity—Size—Divisibility of Matter —Properties of Matter in a State of Division.

It requires some attention of the mind to form an idea on these subjects.

If a drop of pure attar of roses be evaporated in the largest room, it will be perceptible everywhere.

That is, the drop in evaporating becomes divided into atoms, the size of which defies definition, and the number defies statement in figures.

It is possible to imagine that each of these atoms might be endowed with the property of producing an elephant. In fact, the latest microscopic discoveries prove that the germs of all animal beings are so excessively small that only lately have we been able to detect them at all.

Nevertheless, each of these germs contains or possesses the property of reproducing under the circumstances of gestation, and after nourishment, the size, shape, color, and mental attributes of the parent.

Now these germs must consist of two or more things, viz: Organic matter, (albumen and metallic salts,) and modified galvanic or electric fluid.

To the organic matter it is indifferent what shape is produced, for all animals are composed

of nearly the same organic compounds; it is therefore the modified galvanic fluid which is the vehicle of shape.

It is not necessary that any shape should exist in the embryo; the property of shape and color are attached to the galvanic fluid.

As in any substance which forms crystals of a certain shape, you may dissolve those crystals and destroy the shape, but when you have evaporated the liquid the crystals reappear in their accustomed shape, in consequence of the electric property in them which determines the shape. Shape then is the product of currents of electricity.

Another rule is that wherever animals may be produced, they have organs putting them in electrical connexion with such ponderable and imponderable substances as their organization may need.

Stop! said a lady who was hearing my manuscript read: I want to understand that.

Now, in these abstract questions, to produce conviction, things must step by step be logically proved, as nearly as possible, otherwise the reader will take advantage and say: "I don't believe that."

In fact, these things must be demonstrated "Militarily," for in an argument, like in besieging a town, I am endeavouring to force my ideas into your head, while you are as obstinately defending the entrance with your objections.

Now, I know something about military matters; in fact I know the key of them all: but I have

some hesitation in telling, for, however wonderful many things may appear unexplained, *when* explained, one says "Is that all?" However, if you don't mind two minutes, I'll tell you, premising however, that this elucidation is not intended for officers of the army or navy; because they have studied it; nor is it intended for the female sex, for they know how to make war by nature.

I was particularly introduced to Marshal —— proceeding to take command of the army to besiege ——

It was at sea. The Marshal liked chess, and in the intervals of our games detailed to me many circumstances of his campaigns.

I wanted to know how he was going to take the city, but one has some hesitation about asking a commander-in-chief his private plans; however, one day I popped the question: "And pray, Marshal, what are your plans to take the city?"

The Marshal answered me as coolly as if he was eating an ice:

"I must find the weakest point, and attack it with an overwhelming force."

Of course, thought I, what a goose I was not to think of that; why, that is the way my mother managed my father. Is that all? and Alexander the Great, and Charles XII., and Frederick of Prussia, and Napoleon, and Wellington, is that all the secret which made them demi-gods?

Why, it is the way oysters are opened.

We were discussing the axiom that shape in

all organic bodies, vegetable and animal, is the product of currents of electricity; now to prove this militarily.

1st. You admit (see Grove) that all the imponderables, Light, Heat, Electricity and Galvanism, are of the same nature, and solvable one into the other.

2nd. You admit that the silver on your electro-plated spoons was deposited there by electricity.

3rd. You admit that a photograph is formed by the light precipitating the silver.

4th. You admit that the cattle became speckled, (Genesis, chap. 30) by the reflection of the light from white willow wands.

5th. You admit that if a fowl is put on a black table, and its beak held on the table, and a chalk line drawn from the beak across the table, the fowl is instantly electrified by the light, and remains motionless, although it was screaming and struggling before.

6th. You admit Mrs. S.'s baby was marked with a strawberry, because you refused to give five shillings for a pottle.

Now if you had put strawberries on the table every day for nine months, and not allowed Mrs. S. to touch one, the baby would have resembled a strawberry bed.

7th. You admit that an egg requires a certain degree of heat, which is electricity, to hatch it.

Now for my proofs—

The original germ contains a portion of electric fluid, incorporated in it, which possesses

the quality of representing the parent, just as your mind has the property of recalling scenes long past.

This electricity in gestation, forms nerves, which are the conductors of electricity, which deposits solid substances in such shapes, as to form the animal or vegetable.

Thus children, where smaller deposits of solid substances are made, are plump and round: and old people from the continued deposits are more angular.—Q. E. D.

WORDS.

London, July 26th, 1862.

My dear Mrs. V.,

You ask me to explain to you the meaning of certain words.

I will do my best—but the subject is more extensive than you imagine. It's like a railroad with many branches.

When we speak of any thing, the mind is acted on by the effects of that thing, not by the name.

"A rose by any other name would smell as sweet."

The London Tavern gives the idea of a good dinner.

Charles Dickens calls up the idea of an agreeable novel.

After a long journey we are very glad to see the Green Lion, not as a green lion, but that the quality or effect of the Green Lion is a comfortable supper and good bed.

At another Green Lion we may tell the post-boy to drive on, because we recollect the sheets were damp and the room smoky.

But there are other words of which our ideas are not so clear; we use words from our infancy up of which by habit we have acquired an instinctive idea, and they pass as current as half-pence, but we cannot explain them accurately.

Such are mind, thought, love, affection,

patriotism, immateriality, imponderability, and many others of the same sort.

These have given rise to volumes upon volumes upon the human understanding—till the mind of the reader gets smothered under the quantity of the arguments.

It's very fortunate *you* asked, for I could not have explained the human understanding so satisfactorily and clearly to a gentleman.

When first your dear daughter Harriet came into the world she had no understanding: you see I am beginning like a man that builds a house—by digging out the foundation before he lays the first stone; she had a brain, but it was in that pulpy state that the imponderable fluid producing thought had not begun to act effectively. She did not even know that she had a mouth —and you had a great deal of trouble to make her feel what her mouth was made for; however, as soon as she found that out she stuck like a leech till she dropped off to sleep.

And she learnt her first lesson so well that the next time you put her to what you called her bottle, she was quite perfect.

This was the beginning of love: it was not you, for she could not see you;—it was not the milk, for she could not see that;—she felt an effect which not only stopped the restlessness of her stomach, but delighted her palate.

And as soon as her eyes could distinguish objects, and she saw you and connected you with that effect, she loved you.

This is the key, ma'am, to all love, all through life.

Your dear husband told me that the first time he met you in society your liveliness, intelligence, acuteness, and smartness, added to the shape (he said) of an angel and the step of a fairy, so delighted him that he mentally—in fact audibly to himself, said, "That shall be my wife."

Now it was not you he fell in love with; any other young woman possessing the same qualities would have had the same effect on him.

He fell in love with you for an effect produced upon him, just as your Harriet fell in love with you from the effect of the milk.

When I am at a visit at Lord M.'s, where I believe Lady M. only tolerates me as an old crony of her husband, I am not allowed to smoke in the house, so I establish myself in the greenhouse and chat with the gardener; just so in life—when I cannot pick flowers in a nobleman's garden, I pick them by the roadside; not so showy, perhaps, but very pretty flowers. Well, Lord M. takes a great deal of snuff, and so, talking, I said I thought taking snuff worse than smoking, for when they dissected that lady at Dublin, they found her brain and her lungs all full of the snuff she had taken. Lord M. went out of the room and I hid his snuff-box; when he returned and could not find it he got in such a way—as bad in feeling as when you stay out too long shopping and find baby screaming when you come back.

It was not the snuff, it was the soothing titillating effect of it that lord M. liked.

So also with hating: when baby struck its

hand against the chair and began screaming, nurse directly beat the chair and said, "Naughty chair, to hurt baby"—and that was the beginning of hating.

So in the marriage state people pass from love to indifference, and from indifference to hatred: it's not each other they hate, it is the effects. Just as you buy a garden full of beautiful flowers, and you enjoy yourself in the garden and are very happy:

But the flowers fade, weeds grow up, and you wish you had never bought the garden.

The garden was the same, but the flowers were neglected and the nettles grew and stung you, and the effect was that you got indifferent to your garden and at last detested the sight of it.

So indifference, which you think is an ideal quality, is absolutely nothing but material. When I am at the hotel in St. Paul's Church Yard, the first night I can't sleep for that tremendous clock striking—the second it scarcely disturbs me—and the third I don't hear it at all.

So the garden we were talking of may produce the same beautiful flowers, but the pleasurable effect of walking in it is dulled by repetition, as the Bishop said to Henry IV., "I dote on partridges, but I can't eat them every day in the week."

Will you let me help you to a bit more turkey? No more thank you. Only a little bit, a small slice of the breast? No thank you, I really cannot eat any more. That is indifference, same as the clock, and if you were obliged by force to go on

eating that turkey you would hate and detest it beyond measure.

Meanwhile another person drops in with an appetite, finds the turkey you did not care about, delicious, and eats it all up. The turkey is the same, it is the novelty and the appetite that make the charm.

These are all effects produced by material agency, and by and bye when our studies are finished, we shall demonstrate them to you as clearly as we now explain to you the mechanism of the eye.

You want to know why all these feelings—I'll tell you, but we must then dig deeper. Take up Pope—

"Thou great first cause, least understood."

Take out the word "first." Pope put it in for the metre; besides, first has a tendency to refer to time—and the cause was eternal.

Well, that cause organized everything, and the materials are self-acting all throughout life, just as when your baby began feeding before it knew it had a mouth; and you were just as ignorant as baby, for you did not know that you had an organ in your brain to the effect that your baby was the sweetest child ever seen, and you would not have taken £10,000 for her. Nobody would have accepted her of you as a gift then. But now, you have got another organ in your head, and you are actually looking out now for somebody whom you will give £10,000 to, to take the child off your hands.

If anybody had wanted to rob you of your baby then you would have become a tigress. Now you invite the robber into your house, make the nicest dinners and best teas for him, scold Harriet if she is at all slovenly, make her practice in the morning the tunes he likes, so as to play to him in the evening. If he upsets a plate of soup on your best clean table-cloth, though you are ready to faint, you force yourself to smile, and say it's not of the slightest consequence—and if he has any of those horrid habits which we men sometimes have, and for which you would order your servant to say "not at home" to another person—you only say to this robber who comes to take away your child, "Yes, it is a habit that is becoming very fashionable now."

And after this robbery has taken place—if the villain, repenting what he had done, wished to restore you your daughter, your dear daughter, would you take her back? Not a bit of it.

All that, my dear Mrs. V., is the result of simple maternal machinery in the casket under your hair.

You can't realize it. Can you realize that your eyes see, your mouth tastes, your hands feel? Yes! Well, you cannot realize the rest only because it is not like a watch that you can open and see the works going—that's all.

Well, I have explained to you love, hatred, and indifference, but there are a quantity of expressions and words bequeathed us by our parents which would have been different if Adam had received a thorough good education; he never

would have used the expression "the sun sets," for the sun never does set. Then there are a still more difficult set of words which we have only vague ideas of—immateriality, ghost, soul, &c., which we hear used once a week, and as we can't talk of consols or sugar or coffee on Sunday, in most families some little debate arises on the sermon, when really it would be very convenient if we could have definite ideas of what we are talking about. Now there was Mrs. G., when she returned from church the Sunday before last, mentioned that the clergyman said we should have new bodies at the resurrection:

I remarked that if the sinners were to have new bodies to be burnt in, they must have them of different materials from the present ones; that no metal even could stand such a heat, and that diamond was the only substance known, capable of supporting it, and even then, I did not see any place for burning them, except it was the bright sun, which sheds light, and life, and comfort over all creation.

"What!" said Miss Mary, "the sinners to have diamond bodies? What are we then, who hope to go to heaven, to be made of?"

"I don't know," said I; "but if I am to have a new body at the resurrection, I should rather have it at once, for the one I have in use now is pretty nearly worn out." My maiden aunt, who is very regular in her attendance at church, had been sitting as mute as a fish, and with that fixed look of attention which a parrot puts on when you are talking to him, now cleared up the difficulty.

"Of course, we shall have new bodies; any skirt will wear out two bodies, so when I buy the stuff for a dress, I always—"

"Is your soul in your skirt, aunt, then?" said I; "I thought it was in your bonnet."

"Don't you be impertinent, sir," said she; "*your* soul is in your pocket, and you keep it close enough!"

Checkmated again, thought I; a woman sees at a glance what takes a man a week to puzzle out.

"Are you writing this for the public?" said Mrs. Harris.

"No, my dear madam, not a bit of it; when I do anything for anybody, I am not so mean as to ask for payment for it: I am writing for my own particular pleasure, and that of my friends (limited,) and if the public want the book, they will have to pay for it."

I am writing—

To catch and fix, like sun-pictures, those charms of thought, which unite the effects of to-day with the causes of thousands of years ago.

To hunt a highly respectable old public opinion, as I have an old fox from cover to cover, now lost, now found, picked up again, through all his doubles, till, with staggering horse, I get to the last drain where he has hid himself, and there dig him out, and having convicted him of robbing the henroosts for many a year, deliver him over to public opinion, where he passes in an instant from something to nothing: or if I cannot get to his last hiding-place, to leave a mark how far I

have gone for more skilful sportsmen to start by to-morrow.

And this as pleasantly as Gladstone or D'Israeli put on yearly the saddle of taxation, remarking to the horse that if his withers are galled, it was the fault of the man who saddled him the last time he went out; and that now the stuffing of the saddle is altered, he will be able to carry another stone without feeling it.

As for the public, I don't know my next-door neighbour either side, and till I am acquainted with a man, whether he is in the next box in the coffee-room, or at Pekin, it is all the same.

All men and women are good, when they are in good health, and have everything they wish for.

When they cannot, they get out of temper, of course; being out of temper is a chemical action, which affects the gastric juices, prevents proper digestion, and in extreme cases is the cause of the babies being marked: but it is of no use, it is much better to make a pleasant affair of your leg being amputated, than to be angry: and if anything I write should amputate any of your opinions, consider well, whether the currents of thought will not circulate more freely after the obstructions are removed, and try to laugh over the operation.

If you have travelled all day long, on a wrong road, it is most likely the fault of the people at the hotel from which you started in the early morning before it was light; and perhaps they knew no better themselves.

As for any opinions which I give on any subject, I shall neither prosecute anybody here, nor threaten anything hereafter to make people think as I do: and I wish I were the Archbishop of Canterbury and York combined, (as far as receiving emoluments,) I would have no more religious prosecutions.

Do you know what they are like? I can tell you by reversing.

The French Academie des Sciences offer a premium of 4000 francs for the best treatise on the human intellect; and these prosecutions are for the purpose of cramping the human intellect, by preventing intellectual men from instructing their fellow-creatures.

They are the International Exhibition upside down, and the committees distributing the prize medals to the worst manufacturers, instead of the best.

And as to the critics on my book, I shall be happy to dine and smoke with them if they are gentlemen, or take tea with them if ladies; for I am only "a child at school," and if they can point out any errors, and teach me to understand the works of creation better than I do now, I shall believe them readily; only don't threaten me with martyrdom in this world, or everlasting fire in the next, for De Ville says, I am of an obstinate character, and may be led, but won't be driven.

But although, as I said, I am only a child at school as regards the secrets of nature, I have learnt two or three worldly things. I have taken

charge of a steamer at sea, when the engineer was ill; and Professor ——— of the ——— will give me a fair certificate for chemistry; and another very odd thing which I forgot to mention before is—you saw that De Ville, No. 20, said, "remembers what he sees."

Well, I have very often gone over a large manufactory, and in the evening sketched it all off, from the steam boilers to the last ramifications.

Besides, I have been in very odd situations.

I was out of the pale of civilised nations, at least, a British admiral told me so; I was a ship of war with false papers: few and short were the words I spoke with the admiral, but as I left his quarter-deck he sent an officer to say he would do what I asked.

And once I had to decide, whether a monarch at war should have any more money to carry it on, and I suppose you would like to know what I did.

Well, I said, I had been over his treasury, and it was like a patent rat trap, what got in couldn't get out, and his bonds would be bonds to the bond-holders, as they would never see gold for them.

So Victor Emanuel and I are much in the same position, we could both earn our livelihood if we were obliged; but I forgot to tell you that.

I was talking with a lady in Rome about him; she said she didn't like him, for he had very low habits; I knew what she meant, it was De Ville's No. 6—"fond of ladies." I know he is. I know

what passed in his——(well, write "palace," if you think it more delicate, I would not ruffle the feelings of a vestal virgin, and thank you for the suggestion)—palace at Milan; he and his servants were secret enough, and the ladies were brought in the close carriages at the back entrance, at night, and taken away in the morning, all as secret as possible, *but the women told.* And that accounts for the Caliph of Bagdad, who always cut off the lady's head the first thing in the morning.

Well, he (Victor Emanuel) behaved like a gentleman, as the saying is, to them, and if there is anything wrong in what he does, what do you think of Solomon, who kept 900?

But that's not my story. It's this—

Victor Emanuel remarked to a friend of his, that between Austria, Spain, and the Pope, he should not wonder if he was ousted out of his throne, but that he didn't care; that he should always have enough left to keep a hunting-box, and that was all he wanted.

It was this expression the lady objected to; but then she had all her life been intimate with kings, princes, and ambassadors, and thought that a monarch ought to keep up outside appearances.

I firmly believe that if all Europe were put to the vote, except England, Victor Emanuel would become sole king; for he is an honest, straightforward man, who likes to enjoy liberty himself and wishes all his subjects to enjoy it too.

But I forgot, I was talking about the sermons; and that the after-sermon comments in nearly

every family present a kind of incongruous, unintelligible character, very unsatisfactory compared with the intelligence now diffused on every other subject.

And who is to blame? Not you, my dear madam, who go every Sunday to the religious (I cannot say intellectual) repast which your country and government provide you; where, from the habit of hearing them from your childhood, her denunciations of everlasting torment and utter darkness, do not discompose a feature of your face.

Not that worthy clergyman, who employs himself the whole week in comforting the distressed, and consoling the afflicted, and gains his livelihood on Sunday by preaching fire and brimstone on all who do not believe. I hope he buys his sermons.

Not the worthy bishops and archbishops, for they cannot be expected to change anything they get £10,000 a year by.

But something is wrong. What is it? I will tell you.

Go to the South Kensington Museum: you will see the first steam-engine Boulton and Watt ever put up, which was then considered almost a miracle of discovery and perfection. Then—

Go to the International Exhibition and see the steam-engines there.

Now the state of religion is just as though the government of the time being, had passed a law, that Boulton and Watt's engine was the perfection of machinery, and the only engine that could

be patronized by the government; in fact, the state steam-engine.

The religion and the engine were both considered perfection then, but a man would be ruined who used the engine now; as for the religion, it is not altered because it is a vested interest, and the interested parties are afraid that if it were touched it would be all remodelled, and they might lose their incomes.

It is a very hard case upon us; for you see on Sunday we ought to get two good repasts, and we only get one, thus we get a good dinner, well cooked fish, veal and ham, or lamb, very nice vegetables, and a very nice pudding or pie; varied according to the season with turkey, haunch of venison, &c., and by the liberality of our legislature, we put good claret, or sometimes champagne on the table, and we really are very comfortable: we praise the dishes and the cooking, the lady of the house is pleased and happy, and from her radiates a sunshine of content on all present.

But we are not horses, who are delighted when they get a good feed of corn. We are intellectual beings, who want a really intellectual repast on Sunday; something intelligible, something defined, some variety to interest us, something that, when we talk it over afterwards, our minds may be satisfied, as our bodies are with our animal dinner: and we don't get this; or if we do, it is so very common-place, that we have heard the same thing in substance 100 times over: so that we have nothing to talk about,

or else it is some dogma, which is as incomprehensible as one of the dishes at the Emperor of China's table would be; perhaps tastes very well, but we can't understand how it is made up.

Patience!—Patience!—Patience!—

Mr. Cobden got off the duties on corn, Mr. Gladstone took off the duties on eggs, fowls, cattle and wine.

Who will take off the duty on religion? or at least, we have no objection to pay the duty: but let us have a satisfactory article, that our wives and children can understand.

THE HINDOOS.

I know them well. I have lived with them as friend, as judge, as employer, as physician. I have beaten them and had them beaten severely, you are much shocked; ma'am,—the words "inhuman monster" would fain be uttered: gently, did you ever beat your child, and for what? "Yes, for telling falsehoods." You did not turn your child out of the house. "No"—

Very well; in India the servants consider themselves as the children of their employer, patient, untiring, attentive, respectful, but they will tell lies as fast as a horse can gallop, and if ever Nobody lived any where, it is in India, for if anything is stolen, or damaged or broken, Nobody did it. But if you find it out, that servant does not expect to be discharged, not a bit, he expects you will box his ears or slap his face; as to any thing else, you would hurt your own fists more than his body, or you may fine him part of his wages at the end of the month, but he would rather be well beaten than have a penny stopped from his wages; as for telling lies, he does not see any thing wrong in it. I could have had at any time 200 men to swear before a magistrate that they saw me at a particular hour at any place I told them to swear I was. Their reasoning would have been, "you are our father, we eat your salt—what you tell us to swear, that we swear." A Brahmin came to me; his elder

brother was in great trouble, his life was going to be sworn away; a policeman had been wounded in a village row, and after being ill some time had died, and, in the magisterial investigation, another Brahmin had deposed that this elder brother had struck the policeman. "What motives had he for charging your brother with striking the policeman?"

"Well, sir, at the last Poojah, my brother gave greater feasts than he did, and there has been jealousy and hatred ever since."

"I feel quite sure" said I, "that your brother would not strike any man. What witnesses can he bring?"

"Oh, he is very rich, he can bring plenty of people to swear what he pleases."

"Well," said I, "cannot your brother bring plenty more to swear he did not strike the man?"

"No, Sir; he can bring more men to swear than my brother can."

"Well, said I, "I do not see any use I can be of to you in the business."

"Yes, Sir, you know the magistrate; if you could write a note that you knew my brother, and do not think he would strike any one—"

I wrote the note. English magistrates in India have need of great knowledge of the native character and of great power of investigation, to arrive at the truth of cases brought before them.

In the matter of stealing, the natives are very cunning; they will not steal any thing that is worn or used every day, but something that is

put by, that they know may be a month before it is required.

They do not love you any the less for telling falsehoods to you, nor for robbing you, nor for your beating them, when you find them out, any more than your child does.

But they won't do any thing against their caste; you may pound them to a jelly and they will bear it unflinchingly, but they won't do it. The servant that dusts the chairs would not sweep up the room; neither beating nor offers of any sum of money would induce him—he would lose his caste.

I was applied to one morning for medicine for a Brahmin who had been bitten by a venomous snake. I sent it: it was brought me back with the communication that the Brahmin was a very old man, that his relations thought he might lose caste by taking European medicines, and that they therefore declined giving it to him.

Caste is a religious institution, I don't know how many years old—older than the Pyramids of Egypt; and studying the Hindoo habits is like reading the inscriptions on an obelisk. Caste is the key. There are Brahmin caste, writer caste, fisherman's caste, and twenty others.

Now the country has been conquered by the Musselmen, and a large Musselman population introduced and settled, and the English have again conquered, annexed, or somehow appropriated the whole country, and yet caste retains its empire as firmly as ever. Nay, more, let a Hindoo by education, by long intimacy, by

continued reasoning with a European, be perfectly convinced that the miracles and all the paraphernalia of his religion are imaginary, that this or that forbidden by his caste is perfectly innocent, let it relate to eating or touching, still that Hindoo adheres firmly, unflinchingly to his caste.

You shall realize that in a moment. If in that awful conclave whose secrets are more inviolable than those of the freemasons, whose decisions are arbitrary and allow of no appeal, the Countess of S— brings to the knowledge of the tribunal, that certain persons admitted to Lady G.'s last party were not such as could be received by the set she moved in, and also that Lady G. was seen to talk very confidentially in a recess to Colonel H., a pressure of the hand having been detected, and she, thinking herself unobserved, returned to the company with a flushed face, the case is taken into full consideration, and the elderly and dignified Duchess of P. calls on Lady G. next morning, and reads her a lecture which would petrify a piece of wood, or make a basin of milk curdle, I shall not divulge it all to you, but the sum of it is, that Lady G. must keep her parties perfectly select, and not compromise her character as she did with Colonel H —— on pain of every one of her friends cutting her, declining entirely to visit her, or receive her, even to the length of saying, "I do not know her."

That is the way the Hindoos keep up their caste.

Among the lower classes the caste is kept up by a fine inflicted by the heads of the caste.

This has reference to the men; as for the women, as they are always shut up or have their faces covered carefully over when they go out of their houses—they can't go wrong— at least they could'nt formerly, when the good old practice of burning the widows existed—society was then perfectly moral, every young lady was betrothed at seven or eight years of age (like Russian tallow sold for delivery) and delivered the moment she was in marketable condition; being then burnt when her husband died, the market never became overstocked, and that thing about which the papers have long articles, "Social Evil," never existed. I cannot, satisfactorily to myself, philosophically explain the words Social Evil;—Social Evil must be the reverse of Social Good; Social Good is not in the dictionary; however, my friend the Brahmin (whose name you could not pronounce if I wrote it,) told me that a new phase is taking place in India, as thus: as long as the widows were burnt off, which they were quite accustomed to, and expected nothing else, society was like a white sheet of paper, but since the English have done away with the burning, an enormous quantity of widows are thrown on the market—morals are deteriorated, and Social Evil ensues. That you may form some idea of the extent of this evil, I give you a *bonâ fide* conversation which occurred relative to one of my writers, a high caste Brahmin.

"Baboo, where is Banerjee?"

"Banerjee, Sir, gone to Chundernagore, to visit one of his wives."

"How many wives has he got?"

"Six, Sir."

"Don't they all live with him?"

"Oh no, Sir, only one lives with him."

"Where do the rest live, then?"

"The others all live with their fathers and mothers, and Banerjee goes to see them whenever he has time."

You will see with half an eye that an arrangement like this, combined with burning the widows, would at once remedy all the social evil which is so pathetically complained of; but as the English won't allow the widows to be burnt, what is to become of Mr. Banerjee's six wives when he dies? for no Hindoo will marry them, although very handsome settlements have been proposed, to introduce the custom.

I am not going to write about Social Evil—I believe it is quite a forbidden topic—something connected with lobster and pale ale suppers at one o'clock at night in the Haymarket, finishing off with hot punch to prevent indigestion; but I think it may have something to do with poaching, a bill to prevent which has just passed the Lords and Commons—so they could just as well pass another to prevent social evil; but if, as I surmise, it is similar to poaching, it might be strongly opposed, as honourable gentlemen might not like to be confined for game to their own manors.

Perhaps Social Evil is more like that Thames nuisance, which causes a great number of diseases, and wants only proper draining (unless you adopt Mr. Banerjee's plans and burn the widows,) to effect a perfect cure.

I think there is such a system in Paris, where they have a particular department of the police called "Preservers of the Public Morals," whose duty it is to see that if vice goes out a walking, she shall assume the garb of virtue.

With all that we are a happy people, for a lady in Paris, whose position enabled her to take an extensive view of society, told me that the French ladies are all envious of the English ladies, and say that Englishmen are the only true, faithful, and constant husbands, and perfect models of every domestic virtue—whereas the Frenchman begins by never marrying a woman unless she has a good dower, and then when he has entered the garden of matrimony, instead of walking always arm in arm with his partner as the English do, he wanders about by himself—leaving his Eden and his Eve—and, of course, if gardens are not protected the fruit will be stolen.

I know that the evil exists to an enormous extent in Rome, for a brother chip (a medical man) told me that the highest dignitaries in the church were liable to it, and enjoined on him extreme secresy; and I know from one of the staff-officers of General Goyon that the general made most earnest and repeated representations to the Pope that nearly half his army were—indisposed, and earnestly entreated the Pope to let him adopt the combined drainage and chemical system, which is found to answer perfectly in Paris. The Pope, however, replied that he could admit of no innovations on ancient institutions, and so matters go on as before.

I beg your pardon for digressing—the pen ran away with the ink. Perhaps ladies who have five or six dear daughters on hand would like to marry off all their daughters for delivery—all done by the priests, Ma'am; the priests are always on visit to one family or the other, talk it over and settle it all; as for the young lady herself, her opinion is no more thought of than you would think of asking the opinion of one of your horses about his being sold.

It took me a long time to guess at any probable key to many of the Hindoo customs; the natives themselves have not the slightest idea when, or how, or why they began—and though they adhere to them with a tenacity of which Europeans who have not lived with them have no idea, still they cannot give any reason whatever except caste.

The conclusion I have come to is, that the key of many of their customs is—Poison. Before detailing those customs it may be well to remark that in all primitive nations, all medicines are herbs—that the knowledge of the properties of decoctions of herbs is probably primæval with man—that the most poisonous animals and most poisonous herbs are found in hot countries—and that although the native doctors found out the most deadly poisons—still, the science of Chemistry was in its rudest state, and their means of detecting a skilfully administered poison were totally inefficient.

We will, therefore, suppose at some very remote period, a system of poisoning to have come into practice, and like the late secret Hindoo rebellion, or like the secret of the Thugs, whose religion it is to waylay and murder travellers, and who make offerings to their Gods previous to and after an expedition, to have overspread the country, and see whether the customs adopted were such as would have suggested themselves as the means of remedying such a frightful evil.

Food:—no caste eats with another, nor eats the food cooked by another—and if any person, whether European or Musselman, goes into a native's house while he is eating, or when his food is ready to be eaten, that food is thrown away. I have often had occasion, in cases of robbery, where any notice beforehand would have defeated the object of my search, to enter their houses at meal times; invariably they have thrown away the food and broken every dish and plate, and I have had to pay for them. They knew I had good reasons for coming, they were not angry at it; they saw me come in, look round, and go ont; they had no reason but caste to break and throw away everything.

In travelling from one part of the country to another, a Hindoo always goes for his food to a Hindoo of the same caste.

As soon as death appears certain and very near, the Hindoos carry the dying man, on a light bed, to the bank of the river, and one or more of his relatives remain by him until he is dead, sometimes twenty-four or thirty-six hours. I

have concluded the origin of this to be, to demonstrate publicly that the man has not been unfairly made away with.

Then the burning of widows: this was an immemorial custom, showing how humanity may be the perfect slave of custom; it was not done vindictively, nor cruelly; it was not done as our Church and Government in former times roasted men, for denying some improbable article of religion, and began roasting them slowly from the feet upwards—the victims suffering intense torture until the fire reached a vital part. I knew intimately the Brahmin whose mother was the last widow who was burnt in Bengal. He told me that the priests gave the victims bhang and opium, and other things, producing a state of almost unconsciousness, and then that the funeral pyre was made of such quick-burning and suffocating woods that the victim was almost instantly suffocated.

Now womankind in India is considered simply as the means of propagating man. Education is considered as perfectly superfluous to her—she never eats with her husband—shut up in the harem, or if she goes out for her ablutions, strictly veiled—she serves but for the one end.

Suppose a Nabob or King in very remote times to have been poisoned by one of his wives, through jealousy or any other motive—what more likely remedy to have been proposed than one which should punish the guilty and take away all possibility of her profiting by any other motive she might have?

Population in India is teeming, because the cost of life is comparatively nothing; a man, his wife, and three or four children, can live very well on eight shillings per month—and less. I speak of the labouring class throughout India.

House rent—nothing; they make their cottages of bamboos, palm and date leaves.

Fire—nothing; they pick up a few sticks to boil their rice.

Shoes—none.

Clothes—from the size of a pocket-hankerchief to three or four yards of cotton.

Food: 82 lbs. of rice—the maund—is generally 2s. in Calcutta, and less up country; round their cottages they grow vegetables, and a few cowries buy spices and flavour the rice.

Tobacco: a very trifle buys them enough, and if they can afford a little fish it is a luxury; and there men on this diet will work all day long in a burning sun.

In the remotest times, from Confucius downwards, there were great law-givers. In India, they tied the human being down to caste—and as he was then so he is now. Paternal Governments, which dictated to the man what he should eat, what he should drink, and what he should believe and think—and they bound him tight by saddling him with a numerous and ubiquitous priesthood—of course very well endowed.

"Whose land is that, Baboo?"

"God's land, Sir."

"How came it to be God's land?"

"In very old times the Nabob gave it to the Brahmins, Sir."

"And taxes?"

"Oh no, Sir! God's land is free from every tax for ever."

In China, India, Assyria, and Egypt, all the same—so man remained the cultivator of the soil. The upper classes—the owners of these myriads of human beings—the owners of their bodies, for they did with them as they pleased—and the owners of their minds, for they crippled them with belief from their infancy, as a Chinese woman cripples her child's feet, so that she can never walk in after life—the owners of these myriads of human beings built luxurious palaces and passed their lives in sensual enjoyments, varied by brutal raids in other countries.

So, in France, before the revolution, the lower classes were in the last state of brutality and ignorance—the higher, in the last state of luxury and sensuality.

Is civilization and the progress of the arts and sciences, the result of the independence of the lower classes of society?

It is a weighty question.

The Hindoo adores justice, probably because so little has been meted to him.

Criminal or not, he looks up with reverence and love to the European who does him justice,

and who hears, weighs, and takes evidence before punishing; he feels himself exalted by being tried, instead of being arbitrarily punished. A trial, far away from courts, is interesting: the culprit is brought up guarded—the brahmins, the writers, the mussulman priests, all dressed in snow white robes, are present; a large crowd of Hindoos and Mussulmen fill the court—three or four Europeans only are there—you might hear a pin drop. The examination proceeds.

The writer writes down the evidence—a Hindoo witness is called—a brass cup with water of the Ganges is handed him to hold, as oath that he will give true evidence—a Mussulman is called—his priest is there with the Koran, and administers to him the oath—a European is called—no oath is administered; the high character he holds is guarantee of his truthfulness. The facts are all elicited—the heads of his religion and caste are consulted—and the verdict given. The criminal is condemned not only by the European judge, but by his own caste or peers, and has nothing to say.

Three religions, representing eight-hundred millions of the human race, are there—of each the testimony is received in his own belief.

And all go forth from that court satisfied that justice has been done.

Justice is very inadequately represented by a female with scales and her eyes bandaged—No—human nature is a garden producing beautiful fruits and flowers, but also poisonous and noisome weeds, and justice is the skilful gardener which

pulls up the weeds and gives the fruits and flowers room to grow.

But the worst weeds in the human garden, (this is a digression) are not picking pockets and housebreaking—the worst are the very highly respectable weeds which plead antiquity and custom, and which have passed through so many phases that they resemble a diamond which a robber obtained by murdering a traveller, and sold to a receiver, the receiver to a dealer, and by and bye it is found on the neck of innocence and virtue. The honourable and humane planters of Cuba and America would not go and surround a defenceless and happy village, and murder those who resisted, and take captive those who did not; they bought them or their parents in the market, and have fed them well and not over-worked them, and cared for them in old age—worthy men, the present employers, but inseparably linked with direst ruffians.

There were the Danes and the Algerians; in former days both had the pleasant habit of robbing ships. As trade increased and the barefaced robbery could no longer be borne, the Danes commuted it into a very heavy toll; the highly respectable Danish government took the place of the robbers, and defrayed the greater part of the expenses of their government by the custom of robbing which they had taken out of the hands of the original robbers—and as the Danish Royal Family was intermarried with other respectable Royal Families, and the Danish fleet made the connection desirable, the robbery went

on till the Americans all at once said, "this toll is but the perpetuation of a robbery, and we will pay it no longer"—and so that ended by a sort of compromise.

I bought a book in Portugal, the history of the beginning of the Portuguese absolute monarchy: Portugal was possessed by the Moors, and one General Don Juan, after numberless battles, drove the Moors out; whereupon the army and people assembled and said, we the people of Portugal make you Don Juan, and your heirs, absolute monarchs over us and our children for ever. Here were millions of unborn children robbed of their rights to make laws for themselves, and subjected to be killed in battle for, or taxed for, one family—and that "highly respectable family" went into partnership with the Pope to keep their minds in subjection as well as their bodies, and then instead of popular vote altered their title deeds to "grace of God."

So that concordat which the Emperor of Austria made with the Pope, delivering him over the intelligence of forty millions of people, to be crippled by preventing any tuition but the Pope's, any books but those the Pope (or his agents) examined to be read and circulated, was a wholesale and nefarious robbery—a hundred-million times worse than the offences for which we hang and transport men—but then—the Austrian Royal Family are highly respectable, and the Austrian government a very desirable connexion to other governments.

Most of these abuses take their origin in

qualities inherent in the mind of uneducated man, that is, ignorance, wonder, love of excitement and credulity; on these, knaves work for their own advantage—transmitting the estate so gained by knavery to perhaps honest men, who would not have perpetrated the first fraud; perhaps uniting the fraud to some services to humanity in the ratio of 1 to 100, as the Danes pleaded in justification of their robbery, that they had put up some lighthouses.

Ignorance, wonder, love of excitement, credulity, these are the reservoirs inside the mountain. Let me explain: take some gigantic fraud on human nature, such as the Mahometan religion—look at it as it over-spreads a vast country, as the Nile overflows—now go up and up and up, till the fraud from millions is the act of one man—till the Nile from a vast river is but a stream flowing out of the side of the mountain. Dig into that mountain for the reservoir out of which the stream has taken its source and without which it could not have sprung—that mountain reservoir is, humanly speaking, ignorance, wonder, love of excitement, and credulity.

The Nile is not a good simile, as its overflowing is a blessing, and not a curse—but I have not a better one at hand, and you understand my meaning.

These things—ignorance and credulity—disappear out of the garden by education.

Education is a national duty; if it is a national duty to feed a starving body, it is equally so to feed a starving mind.

I should like to try a few experiments, but I have no kingdom; yes—this book shall be my kingdom. It came to my notice a long while ago, in perusing the works Louis Napoleon wrote while he was in prison at Ham, how much his education was advanced by it, and how much better monarchs—several I could name—would be for a similar schooling; and then Paganini attained superhuman excellence on the violin in prison.

I found out the reason a month ago: I went to Reading to visit a friend who weighs 17st. 8lbs. and who ought to be indicted by the society for making a poor animal carry him after the hounds.

At a station on the road, a quiet looking, elderly gentleman got into the carriage, followed by a police officer, who sat between me and him—I was puzzled for awhile, curiosity got the better, with the corner of one eye I caught the corner of the policeman's, and said *so to voce*, "In trouble?" "Yes, sir." "For what?" "For an assault." I should as soon have thought a lamb guilty—however, I proceeded, "What will he get?" "Three months."

"I suppose he can pass the time pretty comfortably, and have whatever he wants, can't he?"

"No, sir, because this is a criminal offence, and so he will have only gaol allowance."

"What is that?"

He told me. I am sorry I did not note it down, but it was the most intellectual diet I ever heard of: a basin of gruel for breakfast and supper, and

bread and potatoes, I think, for dinner, all weighed by ounces. I recollect that twice a week so many ounces of meat were allowed, and that he might drink *aqua pura ad libitum*. It struck me immediately this is what V. wants; he is always complaining that he is getting so stout that he will have to give up hunting.

Now for the corollary.

Whereas prison diet is highly intellectual, and quite the reverse of beef steaks and brown stout, which stupify the mind, and whereas many of the finest works have been composed under this beneficent regime—it is highly unjust to deprive the lower classes of society of their advantages, and therefore all magistrates and judges should be ordered to give sentences about as follows:—

Ann B. servant maid, stole tea and sugar—sentence, one month's course of reading.

Henry Hicks, respectable looking young man, for obtaining goods on false pretences – sentence, complete course of reading, writing, arithmetic and book-keeping, six months.

Isaac Barker, ticket-of-leave man, for house-breaking—sentence three years' complete education; and so on, in very aggravated cases administering the study of algebra, Euclid, chemistry, astronomy, the correlation of imponderable elements, &c., or navigation and lunar observations, with a ship on purpose. In milder cases, after a good plain education, the study of agriculture, or any other useful art, might be administered, keeping always strictly to the "Intellectual Diet," until the education was

complete, and very strict examinations should take place before the prisoner is again allowed to "walk alone."

Under these regulations as follows will be the particulars of a celebrated trial—

Robert Higgins, *alias* John Smith,
Thomas Slaughter, *alias* Will Muggins,
John Pybus, *alias* James Snooks,
David Mullins, *alias* J. Bill Hawkseye,

were indicted for having obtained access to Messrs. Coutts and Co.'s vaults, by picking ten Brahmah and Chubb locks, and abstracting thence 20,000 sovereigns, which they were detected in the act of carrying off.

The court was crowded to excess, many of the prisoners' personal friends being present.

The learned judge in summing up said, "Gentlemen of the jury, this is one of the most interesting trials of our enlightened epoch; you will observe that (permit me to call them so) our intelligent friends at the bar have all aliases. It is the prerogative of Royalty and men of high title to travel with aliases—you have remarked that the first-named individual has adopted the same *alias* as the worthy king of a great nation did in paying a visit to this country under peculiar circumstances. The custom of aliases is highly honorable, and adopted as a reward to those distinguished men whose valour and intelligence have been directed to the service of a grateful country, and on whom she then bestows an alias, and then puts them in the House of Lords, like jewels wrapped up in velvet and put carefully away.

"Gentlemen, it is to the intelligence and untiring exertions of her sons that this country owes her proud pre-eminence among nations—but if iron is needful to build 'Warriors,' gold is no less needful to pay for the iron—and therefore the search for gold is a mark of the highest intellect. In that our friends (or rather let me call them pupils, as I doubt not your verdict will bestow on them a careful education,) our henceforward pupils, have distinguished themselves in a manner that promises the greatest advantage to their country. They had been long prospecting for gold—they felt certain it was there, and with a combination of intelligence and perseverance they succeeded in getting at the gold and carrying it away. It is true there was a slight error—but that has nothing in it to detract from their intelligence and perseverance—the slight technical error was merely the prospecting for gold in Messrs. Coutts' vaults, instead of the mountains of Australia or British Columbia—the motives were the same—the article to be obtained the same—merely the direction was wrong, which you will comprehend clearly in considering the legal difference between a camel going through the eye of a needle—and a needle going through the eye of a camel.

"Gentlemen—when we meet with talent like this it is our duty to develop it, and, confiding in your unanimous verdict, I shall sentence these pupils to ten years' intellectual diet—with a regular course of mineralogy, commencing with the study of carbonate of calcium, vulgarly

called breaking stones for the roads—and at the end of that time, or earlier if they are perfect, that they be conveyed free of expense to the mountains of Columbia or Australia, furnished with proper implements and a licence to extract as much gold as they please."

Then looking round to numerous friends of the prisoners, most of them with aliases, his lordship remarked, "these are the class of men the country wants to find, and the police carefully look after."

The henceforward pupils seemed very much affected, and were accompanied in carriages expressly provided for them to the academy, formerly in days of ignorance called prison gaol.

Old newspapers, which cost nothing, should be liberally allowed, that the prisoners might have the advantage of reading the debates in Parliament, and in some cases the study of the Hindoo and Chinese languages might form a part of the verdict. This, with a thousand variations, would be much better than letting a parcel of ruffians pretend to a chaplain that they were very sorry and repented, and would lead a good life, and then giving the poor fellows a ticket-of-leave, which is a ticket to rob or starve.

If your watch is out of order you don't shut it up in a box for three months and expect it to go right—you send it to a watchmaker and have it thoroughly cleaned and repaired—and then your watch keeps proper time. It would not cost much. You would see in two years Jem Stokes, who was sentenced for burglary, with

assault, teaching Tom Styles (there for picking pockets) the use of the globes—and Miss Amelia Charlotte Montague, who went in for shoplifting, come out perhaps an authoress, and have a dozen competitors for her hand.

Why not do it? The nation neglected its duty to them when young—and should do it when they are old. The only reason for opposition to it is the same as made to taking off the tax on paper—the nation can't afford it. Too much money has been spent in fire-works—too much national debt made. That is another digression, but I can't help it now; national debt is like ballast to a ship—with a very moderate quantity she sails well—too much, she is a heavy sailer—and if you go on loading her she capsizes in Repudiation Bay.

The lower classes don't want to make war, a Devonshire farmer does not want to fight with a Norman farmer, nor a Manchester cotton spinner, with one of the trade in Rouen. Look through history, it is always the upper classes, the divine-right people, that want to make war, but they don't want to pay for it.

There are two ends of society, the upper and the lower—and when the bread and the beer, and the tobacco, of the lower end have been taxed so heavily that it will bear it no longer, and the burthen comes of necessity to bear on the income of the upper—the nation gets wonderfully pacific. If, one hundred years ago, the King, Lords, and Commons had passed a law that there should be no duties or excise on any

article whatever, for import or export—in fact, done away with custom houses and excise offices, and instead of all that levied one tax only, the income tax, and that only on realized property, I very much doubt if we should have had a national debt at all: I don't believe the people would ever have asked for reform.

You might try it now, Mr. Gladstone—I am sure the Queen would sign the bill with pleasure, and if the Lords pledged themselves to follow, it might be pushed through the Commons, and there would be no more trouble at elections, for the people would never want to change one of their representatives, besides the pleasure it would give Palmerston, to pay off Cobden for that last impertinent speech of his about wasting public money—"put it all down in the bill, and send up another dozen of champagne and some more glasses, and sweep up the pieces,"—magic words—transforming anger into the most obsequious smiles.

AMERICA.

My fair, amiable copyist (what a wife she will make!) is writing the first part of this work for the printer. I did not intend giving any opinion on American topics, but, as everybody is talking about it, I may as well have my say. I shall be considered an unfeeling monster, it's true; but I have no sensation in me, and analyse a subject just as I do a piece of rock, to see if there is gold, or silver, or lead, or copper in it.

I don't like great sensations. They are very well for making love; or for a recruiting sergeant in a village pot-house, to persuade country louts that legs shot away, and balls in the chest, are honour and glory.

The other day my friend B. came up from Liverpool, and in the same carriage there were a Northerner and a Southerner; and they got into such a furious altercation that B., expecting violence would ensue, got into another carriage at the next station.

As long as sensation is confined to novels, it does not do much harm, though many houses have been burned down by young ladies reading abed; but when a nation takes to sensation, they make great blunders. There was that Trent affair. Wilkes was right. He read some books —couldn't see a case in point—at last took up Hoyle, and found, "When in doubt take the trick." So he did, and so far not a bit of harm

done. Up flare the sensation papers all over the Union. Such articles! as though nobody else in the world had a right to form an opinion but a Yankee; and that they were ready to fight all creation, and John Bull in particular, if all creation could not put up with it.

Some of the articles in these New York papers were written so strongly that, when I was reading them in Rome, I could distinctly smell the mint julep, brandy cocktail, and other mixtures the editors were drinking when they were writing them.

They had bearded the lion; they had made John Bull haul down his colours or stop his engines; and they would stand to it to the last man and the last dollar.

Well, the last dollar is gone; it is the infant ghosts of unborn dollars they are now carrying on with. The last man will be Abe Lincoln or Jeff. Davis, in the final duel which will come off when every other American in the States is used up.

Jonathan, John Bull is your papa, and a very indulgent papa, and has given you a good education and plenty of pocket money; and you are a fine boy, and a growing boy: but if you are unnatural enough to pick a quarrel with him, and fight with him, you ought to get a sensation, and a very smarting sensation too.

Well, old Abe knew he was in the wrong; but the people of New York and Boston read their sensation papers and got sensation mad, and made great asses of themselves, and made out Wilkes a hero—for what? only for taking

an easy trick, which he knew the opposite players could claim if he was wrong; and Abe and Seward acted stupidly and cowardly. They ought at once to have said publicly and firmly, "It's our opinion we have no right to this trick, and we must give it up the instant it is claimed." Then they would have saved New York and Boston from making themselves ridiculous.

The Americans had the finest opportunity any nation ever had since Joshua stopped the sun, of proving that they ought to be a united nation.

They ought instantly to have held a mass meeting, and passed a resolution:—

"We, the American people, declare that, whatever violent, arbitrary, and unjust actions the English Government may have perpetrated against us at sea at former times, we cannot submit to lower our character by following such precedents.

"We declare that, if ever we allow aggression or injustice to stain our national character, we should be unworthy of that first class among nations which we consider to be the destiny of the American people.

"While we do not blame Captain Wilkes, believing him to have acted conscientiously, we recommend and intreat our president immediately to release Messrs. Mason and Slidell, and to furnish them the means to go wherever they desire."

A burst of acclamation from Europe would have said, "Must so noble a people be disunited?"

Jeff. Davis would have written the following letter:—

"My dear Lincoln,—Don't go on that way, you'll demoralize my army; as I reviewed them this morning, there were cries, 'Bravo, old Abe!' and the advanced piquets were drinking together. This is not war; play fair; use cannon and bayonet and I don't mind. Yours, very truly,

"JEFF. DAVIS."

Abe would have answered:—

"My dear Davis,—Check to the King. I am preparing a bill to lay before Congress, that for this once there shall be two Presidents—Jefferson Davis and Abraham Lincoln. I have put your name first, from the high esteem I have for you. The bill will be passed to-morrow morning. Can you dine with me here to-morrow—sharp 7?

"Yours, ever,

"AB. LINCOLN."

Davis's reply:—

"My dear Abe,—The armies have fraternized; every bit of gunpowder has been fired away in rejoicing—not enough left to fight a duel with; Richmond illuminated—the Union saved; I'll be with you before 7.—Yours affectionately,

"JEFF. DAVIS."

Now, as the Americans want sensation, that is the kind of sensation they should have. The American form of Government is perfection: the most able men of the nation for President, Senators, and Representatives—can't be better.

They are a first-rate people when they avoid sensation; it is one thing to love a woman in

proportion to the estimable qualities she has, and another to do as a friend of mine, who wrote me about his going to be married, "This transcendent angel has deigned to mingle her lot with mine." As might be expected, they have now separated. This is mostly the case; sensation promissory notes are seldom honoured in full.

The attention the Americans give to the education of the female sex, even to the girls employed in their factories, is laying the foundation of a great nation. If I had to decide which was the most superior nation, I should not look at the men. Healthy, well-educated women are the source of superior men. Still, the Northern ladies allow themselves considerable licence in the sensation line, particularly in religion. I have no right to comment on that; but I may mention, that in our family there are two spinster ladies (not old) who have caused great dissensions by intruding their opinions and advice upon the younger married ladies and youths of the family—hinting that the brothers, husbands, fathers and uncles were not in the true road to salvation, and so creating much discomfort and heart-burning. If those ladies had fulfilled their own true mission on earth, and tutored their own babies just as they pleased, much discomfort would have been avoided.

There ought to be some half-way house to heaven, and when ladies get too good they ought to be sent there.

I have been at Camp Meetings—a cloudless sky, a beautiful forest of trees, the first branches

thirty and forty feet high: a long pulpit, four able-bodied men in it: around, a large congregation of men and women; the able-bodied men in the pulpit continue incessantly, in spells of an hour each, ranting furiously about boundless love, eternal damnation, unquenchable fires, saving grace, the Devil seeking souls, elect from the beginning, and all that: the women below crying, sobbing, fainting, shrieking, hystericking. Ask one of them to explain to you clearly what it is all about, and she'll tell you you are very wicked. People may get a great deal worse drunk with sensation than with brandy cocktail.

One is more at home with a Southerner than with a Northern man, but that is always the case in hot countries. An Englishman who is reserved and stiff in London, becomes an open-hearted, hospitable fellow on an Indigo estate in Bengal. All he has in his house is at your service, and there is a horse and gun and servants if you like to go shooting. It is true that in the management of his estate he does not consult law books as to *meum* and *tuum*, and does things rather in the absolute and paternal way, and sometimes may give a Ryot a good beating; and I have known Mrs. Bull, who belonged in London to the Ladies' Universal Philanthropic Society, take off her slipper, and give her Ayah, and even the young Kitmutgar, a good beating with it—but they were so provoking!

As to the American dispute, they are both of them perfectly in the right, and both of them intensely wrong. The North says, "Your slavery is horrible; it is against Christianity, against the rights of man—demoralizing, brutal—and it is my duty as a Christian to try to put an end to it. You harrow my feelings horribly; you beat a poor wretch till he runs away, and then you pursue him like a bloodhound through my country, and actually force me to chain him for you to take home, where you cut all the flesh off his body."

The South says, "Keep your religion to yourself; mind your own business, and don't come amongst my people preaching hatred against me, and putting such ideas into their heads that I run the risk of being murdered in my bed every night."

They are like two families—Mr. North and Mr. South—who have separate apartments in the same house, but agreed to pay rent and taxes, and gas and water, and to defend any law-suits and bring any actions in common. Well, they have long had bickerings; and at last Mr. South says he insists on putting up a partition, and having his own part of the house to himself.

Mr. North says, "No, you shan't; when we took the house it was the tacit understanding that no partition ever should be put up; a partition would stop up some of the doors; and besides, if we got into a law-suit with Mr. Bull or Mr. Frog, all the expenses would fall on me, and I couldn't afford that."

"Mr. South replies, "I can't help that, I must have the partition; and as for the slavery you bother about so, I had it from our father, Mr. Bull."

Mr. North says, "I had the religion from father too, but if you'll only make friends, and shake hands, and have no partition, we could go and take away papa's farm in Canada."

Jonathan, I'll tell you how to annex Canada. Pay off all your debts—not interest, but the principal. People have no objection to go shares with a man in his cash balance at the bankers, or in his dinner, but they don't like to go shares in his debts.

However, Mr. South won't; and so they are doing—two things—expending men and creating national debt. I say expending, because it is the French military expression. Pelissier found that to take Malakoff he must expend 10,000 men, and Malakoff was his.

Several English papers arguing mediation, writing sensation about it. When I was at school, if two boys were caught fighting, the master always made them fight it out, and whipped both afterwards. Those two didn't fight any more.

Then there are boiling hot sensation articles in the papers daily about the distress among the cotton operatives in England, and urging immediate mediation, friendly if possible, forcible if needful.

If the English Government were unfortunate enough to act on these suggestions, the misery

they would bring on us is tenfold that they would seek to avoid.

England is rich enough, without feeling it, to feed every cotton spinner on roast beef and plum pudding, or at least with everything needful, till cotton enough is grown elsewhere; and she will do it too. There is a quiet, steady, determined English way the nation are taking up the support of the distressed operatives, that won't get tired —not too fast, at first—not too much sensation—but that strong feeling of duty that never tires—to which sacrifices are no sacrifices—and which becomes more exalted the heavier the duties press on it. The English operatives, men, women, children, and babies, will all be taken care of.

Protected from want during the crisis, which now seems hanging over them like a dark cloud, the cotton spinners have a glorious future before them. All the world is growing cotton, and by and bye the Americans must grow cotton more earnestly than ever they did in their lives yet.

The Americans are now growing a plant that will produce such quantities of cotton that the markets will all be glutted. The plant is called national debt. Now I am going to explain to you how this plant grows, so clearly that every ragged-school boy with his slate and pencil can follow it. There may be variations, as, if chancellors of the exchequer were bonnet makers, one trims the bonnet this way, another that way, another alters the curtain, and each holds up his bonnet as the most fashionable; but still it is but a bonnet.

Take your slate and pencil. 100 men and their families land on a fertile island; every man works; and they find that three days' work of twelve hours each per week per man suffices to maintain them and their families; so

$$100 \times 3 \times 12 = 3{,}600 \text{ hours' work}$$

must be done per week.

Now, they have a fight with savages, or make fortifications, or do something else to begin a national debt, the nature of which you will comprehend clearly by buying £100 of gunpowder on credit, and making fireworks of it. The fireworks are very pretty, but you have nothing to show for them, and you owe £100.

The national debt so got up shall be held by 10 of the men; but as 3,600 hours' work must be done to maintain the 100 men, it follows the 90 left must do it.

To save you intricate calculations, suppose the national debt swelled up by the fireworks let off till 50 men and their families live on the interest, without work; it follows that the other 50 men must each work six days in the week, of twelve hours each, say $50 \times 6 \times 12 = 3{,}600$ hours.

This is what in music is called the air. There may be variations played on it, such as if some man had died, and left his son money, which represents so many days' work; and you take part of the dead man's money, and call it legacy duty; you avoid taking from those whose fathers left them nothing: and if you have a profitable foreign trade, and get six days' work back for

three days' labour which you export, you save so much labour; and as long as such trade lasts you may have a splendid national debt, and not feel it; but if ever the gas escapes out of that balloon, your national debt turns into a dissolving view.

So now the Americans are getting up a fine national debt. Let us translate that word. They are making gentlemen.

Suppose interest of national debt, £25,000,000, divided by £500, gives 50,000 families with incomes of £500 each, who have no work to do. I am showing you where the Americans are sailing to with a spanking breeze, or, in modern talk, with 20-atmosphere high-pressure boilers. Now, the gentlemen of these 500 families have no need to bother their heads with rising and falling markets, or buying and selling, or having breakfast over and being in the office by ten o'clock, or other minutiæ of business; and they become quite different characters; more observant of the general state of things, more reflective, more calm, more conservative by their love of security, and at the same time moderate reformers by their intellect, and by that same superiority of intellect which spare time and reflection procure them over the man who is a daily drudge to maintain his family, they influence (when it is a very fine national debt) the whole character of the nation. And this is the class of men the Americans are bringing forward as fast as plants in a hotbed.

The war will end, as all inveterate wars do, in the exhaustion of either men or money, or both,

on one side. Peace must follow; and, like two pugilists who have fought their 100 rounds, and each does justice to his opponent's power of giving and taking, they will shake hands, praise one another up, and then settle the bills.

As the debt is among themselves, they cannot pass a sponge over it, no one would dare to propose it. The debt will then gradually get out of the hands of the present holders, who have picked it up in the scrabble, and into the hands of the 500 gentlemen (more or less) I have named. You may say some of the debt may be owned by working men. True; but they will work the less, or their sons will.

And the character of the American nation will be very much improved by it; there will be more likelihood of a durable peace—for man is, I must say it, a fighting animal. He has a strong animal propensity to fight; it is shown in all the lower classes of society. A little drink brings it out at once; and in this state, or in any state brought on by sensation papers, he is ready to fight, right or wrong; and in most questions in this world the wrong is so easily made to appear the right, that man embraces immediately any reason which gratifies his organ of fighting.

This was clear in the feelings of the whole American Northern nation on the affair of the Trent; and it is my opinion that if this Southern quarrel had not arisen to give them the opportunity of getting the fighting fever out of their blood, it would not have been long before some, perhaps, very trivial matter would have brought

on a (very popular) war with England; and, from the prodigious resources they have proved themselves to possess, such a war would have been disastrous to England beyond measure, whatever damage we might have done them.

That difficulty is now tided over. The 1,500,000 men the one and the other side have placed in the field may be expunged from their population—killed, wounded, constitutions ruined, habits alien to work acquired. Those that have health and strength left will not want war. They have been drilled, ordered about, made to work in trenches, and are no more like the free-thinking, free-acting citizens who joined the army than a lot of wild prairie horses would be like the same horses after they had been worked a twelvemonth in an omnibus.

I don't mean to deny that there may remain a few that a grateful country might induce to join in a pleasant raid in Canada; but by the time the grateful country has paid the present glazier's bill, they won't be so ready to throw stones at other people's windows, and they'll grow more cotton and less sensation, which will be the firmest bond of union between them and their friends on this side the water.

Of course there will be little differences. There will be Wilkeses and Harney's, and men like that goose in Congress. We had one in the Commons here, but he is gone, it is to be hoped, to a better place; and the French have a fine specimen, a marquis, who wants immediate war with England; I don't know why. The French have taken

possession of London already. They have made lodgings and cab-hire rise fifty per cent.; and the Zouave bands have played French national airs. These isolated curiosities are only like single pimples on the human body, which come to a head and pass away—just a local sensation—not like the sensation which makes the body break out all over, and affects the brain, and makes the patient so delirious that he requires careful watching, and perhaps the lancet.

October 14, 1862.

The foregoing was written a month ago. Since then we have the Battle of Antietam and the President's Emancipation proclamation.

As to the battle—it only adds to the account heretofore stated—so many more men killed, and so much more national debt, *i.e.*, gentlemen made. America will not feel that an hour after the present difficulty is settled, wages will rise excessively, and Europe, now in profound peace, can spare a million of men.

The Proclamation of Emancipation in the States remaining in secession the 1st January is virtually total Emancipation. The President passes this act as a military measure, he being Commander-in-Chief. Military measures are right or wrong according to the mode agreed on of carrying on the war, just as there are certain rules for pugilistic combats. The Americans, North and South, profess to be civilized nations, or

a civilized nation, and ought therefore to carry on war according to modern civilized usages; but as no nation will care to embroil itself by interfering with them, they will be left to the consequences of any such measures as they deem right under the head "Military."

If there is any maxim of weight in warfare it is, "Do as you would be done by," and if this military measure occasions the murder of the wives and children of the inhabitants of the Southern States, it becomes the question whether the Northern States would do it, if retaliation were made by murdering their wives and children; or suppose Stonewall Jackson had given no quarter at Harper's Ferry, and put to death the 12,000 men there, as a military measure—military measures have their right and wrong as well as civil measures, and nations who do not observe these rules go back to the times of indiscriminate massacre.

The President, however, assumes that he is President of the seceded States; he calls them rebels, just as a schoolmaster threatens a naughty boy; in fact, he does not admit the right of Secession, and so legislates "de jure" where he has no power "de facto."

Let us examine this right of Secession. Let us begin with what obligations a human being has on coming of age:—

1st. He is not bound to be of his father's religion.

2nd. He is under no responsibility whatever for his father's debts.

3rd. He is not bound by any promise whatever which his father may have made on his behalf; his obligations must be of his own contracting.

4th. As to his country, or the country where he resides, he must obey the laws or incur the penalty; but he is not bound to approve either of the laws or of the government, be either what they may. He has a right as to his opinions to be Absolutist or Radical.

5th. The total of a nation, or the majority of it, have a right to change the mode of government of that nation.

6th. We now come to the right of a portion of a nation to change the government by seceding, and the rule of right or wrong appears to be determined by causes and results of cohesion or division.

7th. Nations cohere and agglomerate for strength. England, France, Sardinia, and Turkey formed an alliance during the war with Russia, that is, "in re" that war they became as one nation. So the United States became as one nation to free themselves from the government of England.

8th. Self-preservation seems to be the justificatory argument against permitting secession—not that a seceding part may not have a moral right to secede, but that the main body would be so weakened by the secession that it is justified in opposing it. If Ireland could be moved and put down close to Otaheite, its secession would probably meet with no objection from the Eng-

lish nation; but, as it is, the secession of Ireland as a separate kingdom would so weaken England that she cannot allow it; therefore, if every inhabitant of Ireland, in a body, were to demand to secede from England and form a separate nation, England would reply, "Your being an independent nation would enable you to league with France and conquer us, and therefore we are obliged by the laws of self-preservation to keep you incorporated with us."

Morally, the Southern States have a perfect right to secede, without giving any reason at all; they are not bound by any promises their fathers made in 1789. Suppose in 1789 they had had a Napoleon instead of a Washington, and that a unanimous plebescite had proclaimed him and his family absolute sovereigns over the Americans for ever, that could not and would not be held to bind the nation in 1862.

And if a nation has a right to change one form of government it has equally a right to change another.

The moral right to secede being thus established, the causes of the war are simplified in the enormous loss of power and riches which the North will sustain by separation from the South.

These causes would justify a war in case of a small section of a country wishing to secede, for otherwise countries would be liable to be broken up into little bits.

But the South has not only the moral right, but has the power, that is, it appears that the North cannot conquer the South.

But suppose the South should conquer the North—which is not impossible—the accession of a few border states, and a successful navy, lifting the blockade, realizing the cotton.

And suppose the South then sent in "her little bill" for all the expenses of the war, with this note attached, "We had a right to secede, you had no right to make war on us for seceding; now pay!!!"

The claim, at least, would be quite as moral as if the North conquer and confiscate Southern property, to reimburse itself for the expenses of the war.

In any case, however, there is a great deal less harm done than the public outcry justifies. Let us examine the probable end of the affair.

The parties interested are the North, the South, England, and France.

The North finishes with a very handsome National Debt, infusing into her Government and society that degree of gentlemanly conservatism, the want of which has been, perhaps, the main cause of the secession.

England and France are decidedly better off; the bugbear of dependence on America for cotton has ceased, for the enormous profits which have been made on the trials at cotton growing all over the world have created that capital which is necessary in all new enterprises. India, Egypt, Algeria, and a host of other countries have begun growing cotton in quantity, and will not cease as long as there are remunerative prices; meanwhile the public are not short of cotton goods—one

quarter of the quantity short is made up by economy, one quarter by other tissues of wool, jute, flax—all which trades are flourishing—and for nearly the other half the quantities of cotton coming from different parts of the world suffice, and if even the price were for a short time to be doubled, so as to furnish excessive stimulus to the growth of cotton all over the world, still the results in the end must be advantageous to England, as preventing for ever the recurrence of a similar inconvenience.

Remain to be dealt with, our friends the South —the Confederates!

Gentlemen, I admit that you had a perfect moral right to secede without giving any reason whatever.

Whether you were right in seceding is another question; a man has a right to get drunk in his own house and break his own windows, but he is not right in doing so, and he pays the penalty in health and pocket.

However, you have seceded, peace is made, and you have your Mason and Dixon's line guarded with sentinels, that not one of your slaves may escape.

But you have no moral right to uphold slavery. The enlightened part of mankind are of one accord—that man has no right to own his fellow-man. I don't speak of the fanatics; they do more harm than good. Religious fanaticism has been the scourge of mankind. It is a weed that thrives wherever there is ignorance, and was sprouting out in Hyde Park the other day; but

it is an expensive kind of a weed, and chokes all the other products of a garden, and that same fanaticism has annoyed you into the act of secession, you, all the time, fanning furiously that fanaticism by obliging conscientious men to aid in returning your escaped slaves.

True, you had the law on your side, but you know very well that it is quite possible for a party, having a temporary superiority of votes in a government, to pass, in a moment of exultation, almost any law; but if that law is not founded in justice and humanity, it will remain law only as long as the party which passed it remain in power, exciting, all the time, the hatred of those who are obliged to conform to it.

You see that in the present state of the United States Lincoln Government, the whole of the rights and liberties of the Americans are done away with, and the North governed more absolutely than any nation of Europe at present is; and why? Under the construction of a Latin proverb, "Salus reipublicæ summa lex." A very dangerous principle, because, though carrying an apparent truism on its face, it would justify any future President, on the occasion of any war, to suspend all the sacred rights of citizens, and to inaugurate a reign of terror such as rendered the name of Robespierre immortal and infamous.

However, gentlemen of the South, you have seceded and made peace, and hold up the principle of slavery. Can you continue to uphold it? I doubt it. You may for one, two, five years, but I doubt your carrying it through permanently.

One, two, or three hundred years ago it would have answered very well, because slavery is an institution which has existed from time immemorial, and under all religions. But within the last fifty years the feelings of mankind are very much changed, and public sentiment revolts at the idea of a poor donkey or a cab horse being treated cruelly, much more a human being.

You say he is black. Allow me to tell you that that is a great advantage. When I was in the East Indies, prostrated with the thermometer at 110, I should have been delighted to have been black, or blue, or green, if thereby I could have had good health and enjoyed the climate.

You say he is a mentally inferior race. Possibly; but that is a matter of phrenology, that is, whether and what organs in a negro's head are inferior to those in a white man's head, and how far such defect is remediable by education. He may not have talent to decypher the ancient Egyptian hierogliphics, or make great discoveries in astronomy or chemistry, or see his way clear to just conclusions as to the correlation of physical forces, but it does not follow that he may not become, if well educated, a good shopkeeper, good citizen, good husband and father.

You say that the South would go out of cultivation if he were liberated. Yes, in his present state of ignorance, but not if proper precautions were taken. The Island of Mauritius grows twice as much sugar since the abolition of slavery; and there is no slavery in the East Indies, and yet the land is cultivated.

You, as a government, are exceptionally situated as to upholding slavery, on account of your being our brothers and speaking the same language. The act of owning or illtreating a human being is, of course, philosophically just as bad in Turkey, Egypt, China, or Brazil, as in America; but, somehow, we don't feel that we have so much right to comment or feel hurt at what a nation does which is alien to us in language and religion, as when the same act is perpetrated by you, whose literature is ours, whose field sports are ours, whose dinner parties are as ours, and who are, in fact, but ourselves a few days' journey off.

As to your cotton, we are making a great outcry here about the distress in Lancashire, which is very useful in getting subscriptions, and the subscriptions alleviate the distress. But there is a side of the question which is not prominently before the public; that is, the distress would have been just as great if you had not seceded; not so instantaneous—but in the aggregate as much, for the quantity of cotton and cotton goods was so great all over the world, that losses, bankruptcies, and stoppage of mills would have ensued by keeping up such an enormous supply.

As it is, we have realized great profits by our cottons.

Besides that, you (and the North) have rendered England unspeakable service as regards India. The tenure of land has been improved, railroads, and branch roads are making, and the culture of cotton being pushed, so that if you will only keep your cotton at home for another year,

the enormous profits India will make will immensely benefit that country.

Then the Egyptians will sell their cotton this year for eight millions sterling, which costs them less than two millions—profit over six millions; in one year more, then, they will produce twenty millions.

Then Algeria, Syria, Natal, Australia, are all growing cotton, thanks to you, besides the benefits you are conferring in the same way on the West India Islands and Brazil.

So that you (not forgetting our friends of the North, who were so kind as to blockade the ports) have really conferred on England an enormous benefit.

As for any sufferings in Lancashire, if there really were, the Guardians of the Poor and Her Majesty's Ministers ought to be called to a very severe account for it; but it is not really the case. Sufferings are of two classes—mental and corporeal. A man is very unhappy (perhaps) when he loses £5,000, though it does not in the slightest degree affect his power to purchase all the food his animal organization requires. And although the operatives cannot eat so much meat, or drink so much beer, brandy, gin, &c., as they did in good times, or perhaps none at all, and are forced, in spite of themselves, to join the Temperance and Total Abstinence Societies, still there is no doubt that they have ample food for their animal organization.

Whenever in England the question of slavery has surged up, the reply has been, "It is true,

but we are obliged to shut our eyes to it, or our population will be famishing." That bugbear is now removed, and grateful Colonies all over the world are drawn in closer bonds to her.

Now, as long as you, as an enlightened, and I will say as an English Government, continue to uphold slavery, you will be like a man who has what the doctors call "secondary symptoms." It will be always breaking out somewhere. If you wish to indulge in the (expensive) luxury of war, there are the slaves; or if in peace, they are running away, and you will have an everlasting trouble with them. Therefore, you had better cast about and see what is best to be done, as an able captain, when he knows a cyclone is coming, will shape his course so as to make fair weather of it.

You are able men, and great men, and distinguished men, and your acts since secession have won the regard of thinking men, and you are so fully capable of meeting every emergency that can happen to the human mind, that it is an insult to advise you, as supposing that we in England can see or know anything better than you; therefore, if I give you my ideas of what I think you had better do, I beg you to consider them not as advice, but merely as speculative ideas.

I think that although no government is justified in upholding slavery, still, a government finding itself in presence of slavery, and of a mass of uneducated human beings, has a right to act for the general good, and therefore I should continue slavery of the Negro above (12) years old for

ten years. But that slavery should be modified, no families separated, and, as far as possible, no sales, and no cruelty whatever.

At the end of the ten years, each Negro should be free, aud have a grant or gratuity. Meantime, in payment of the debt to the fathers, I should give an obligatory excellent education to the children under twelve, bearing in mind that the better education a man has, the better citizen he makes.

Thus, at the end of ten years you would have a free and orderly population of Negroes. Of course there are all sorts of precautions to be taken; but the plan I should pursue would be continuation of servitude for a time to the old and ignorant, and forced and excellent education to the young.

A government has no right to compel one man to be the property of another; but a government has a right to compel all its subjects to receive a good education, as a means of lessening crime. And if to give them that education, not only to the children, but reading rooms for the grown up, heavy taxes were needful, they would be less disapproved of by thinking men than any other taxes.

Of course, to give an excellent education, and reading rooms and libraries to Negroes will be considered ridiculous by many persons; but the question really is this, if you have two children of your own, the one very clever and the other very stupid, you really are morally obliged, as a father, to bestow most pains and care on the

stupid one, to enable him to go through life in a creditable manner.

Besides, the difference to your country between having four millions of educated negroes and four millions of ignorant negroes will be immense. The uneducated negro only wants to satisfy his animal wants, and cares not to labour to produce much more. The educated negro will need the comforts of civilization, and will work to produce them.

You are afraid the negro will run away if he is made free.

The negro will not run away from an estate where his children are receiving a good education, and where his employer is giving him the chance of elevating himself in the social scale. So far from your having to go hunting your runaway negroes in the Northern States, it is the Northern negroes would flock to you and work for you.

Of all the false positions in which the august character of Government could be placed, none was ever so false as that which President Lincoln placed the Presidential chair, when he called the negroes together to tell them that the whites did not like them, and wanted to get rid of them.

That a white man or woman may choose or not to dine or ride in a 'bus with a black one, is matter of fancy, opinion, or prejudice; but that the sacred character of Government, which, like the sun, ought to shed its beneficent influence on all its subjects, and on the stranger within its gates, should be so soiled as to lend itself to the impression of such unworthy sentiments, is pitiable to witness.

It is very evident that it requires other qualities besides platform pledges to make the Presidential chair respected.

After all is said, it is one thing to will, another thing to do; and it is not probable that the Southern Government could carry through so material a change in the nature of property immediately upon the settlement of its difficulty with the North; and matters will go on as hitherto, until either an anti-slavery party originates in the South, or, what is more likely, some catastrophe brings on a denouement.

Some farther ideas have occurred to my mind which, although not in regular order, still bear upon the subject under consideration.

It appears to me that, in considering the question of slavery, a great distinction must be made.

Whatever crime or obloquy attaches to slavery, the whole of it attaches itself to the government which vindicates and upholds it—none whatever to the individuals who, under the sanction of the government, hold slaves.

In all the effervescence of the anti-slavery movement in England, no one ever attempted to stigmatize the owners of slaves personally. No gentleman objected to marry a young lady because her fortune of £5,000 a year arose from estates and slaves in the West Indies.

The West India estate and slave owners themselves, most of them, agreed that it was an evil, and the pressure was brought on the government to liberate the people of England from participating in the evil, and so, by remunerating the

owners, to cause the evil to cease; and, if the government in liberating the slaves had caused an obligatory good education to take place, which it had the right to, it is probable the state of the West India islands would have been more satisfactory than it is now.

The sentiment which makes society at present recoil from slavery, is not so much founded on its corporeal nature as on its mental nature.

If a man hired fifty free negroes to do a specific quantity of work; and if he bought fifty negroes, at such price and expense of keep that the work cost him exactly the same, the quantity of corporeal work done by each gang would be precisely the same; but the hired free negro's mind would be free—would be his own to use, to judge, to speak as he thought, to read what he liked, to receive instruction from whom he pleased.

Whereas, the slave negro's mind is not his own. He can neither learn what he likes, nor read what he likes, nor talk to whom he likes, and consequently the man's mind is enslaved as well as his body, and the owners and government are obliged to keep up this slavery of the mind, and to discourage education, because they know that the first impulse of human nature is freedom.

I admit and believe that the slaves in the Southern States are very well treated. I admit that as far as the animal existence of the body, they are better off than a very great portion of free men. I believe that the cases of cruelty are in about the same ratio as the cases of cruelty which occur to horses in London (and are brought

before the magistrates) to the total number of horses in work.

Still, if the public feeling revolts at a donkey or cart horse being ill-used, it is not to be wondered at if it stigmatizes in the strongest terms an institution which places a human being at the mercy, perhaps, of an unfeeling ruffian.

Public feeling is altering very much with the advancement of science and education. Eighteen hundred years ago crucifixion was a favourite punishment; very lately, indeed, the Turks punished by impalement. I had a Greek servant who saw people impaled by, I think the Pasha of Janino, and described to me their horrible tortures. Martyrdom, wholesale massacre for the sake of religion, burning of poor old women as witches, wholesale hanging for crimes; such have been the habits of the human race. But latterly society has changed all that. The punishment of death is only resorted to in most extreme cases. Flogging in the army and navy is discountenanced; the excessive labour of children is forbidden. All these beneficent tendencies of society spring from the same fountain as the settled disapprobation of slavery.

This more merciful feeling of society appears to gain ground daily with the continued improvements in education, and consequently the antagonism between the government of a country of Englishmen (as the Confederate States virtually are) and English public feeling, will continually increase instead of diminish.

Great allowances must be made on every sub-

ject for the phases the human mind is going through, is capable of, and is subject to. English ladies consider it sinful or improper to talk theatre on a Sunday. The same ladies in Paris or Rome go to the theatre or opera on Sunday. Why? It is that the mind accepts the *statu quo* of the nation it is in; as Mrs. Harris said, "When we are in Turkey we must do as the Turkies do."

Reading the atrocities committed by the English and French nations years ago, we think they must have been monsters in human shape. Yet they had the same feelings as we have, but found themselves in presence of a popular, or government excitement.

The English were trained by the government sixty years ago to hate and despise the French; now we amalgamate with them.

The human mind is very pliable, and influenced excessively by the government it is under; and it may be that the example of mildness and intelligence we have had from the throne has had its effect on the nation.

Under Napoleon I. the French nation thought of nothing but war and glory; under Napoleon III. they wish for peace and commerce, and call on him to realize his motto, "L'Empire c'est la paix."

A nation is like a flock of sheep; on every important subject it anxiously looks for a leader, the mind wants to be shown how to form the best opinion. Is it a commercial question, Cobden is king, Gladstone guarantees our finance, Palmerston shows that the bull, though a very good, quiet,

peaceable animal, can show his horns and use them if he is insulted, while probably a lecture from Faraday on the nature and spirits of ghosts would ensure a crowded audience.

The editors of newspapers are the conductors of the electricity of thought from the leading classes to the masses, and, therefore, the onus of correct reasoning rests on the upper classes.

America is a great country; at least it was a great country as long as the rights and liberties of the citizens were superior to the powers of the government. All civilized humanity looked with pride at a portion of the human race, which could dispense with military power and preserve individual liberty and constitutional rights; but the acts of the Lincoln-Seward Government show that, under the veil of freedom, lurks the reality of absolutism.

When the question arose, "Shall the Union be preserved, or attempted to be preserved, at the expense of the rights and liberties of the people?" the answer ought to have been, "Sacrifice the Union to Liberty and Right." As it is, both are lost.

There is, no doubt, a great alienation in feeling at present between the people of the Northern States and the English nation, which may be traced as follows:—

When the South seceded the English nation considered the South entirely in the wrong, because Lincoln was chosen regularly; and to convulse a government because an adverse party gets into power (legally), is a principle which would lead to anarchy. Because, also, the United States, as a total, were a nation that had enjoyed the greatest amount of material prosperity and intellectual advancement ever witnessed in the world, and, therefore, to attempt to break up such a form of government was felt to be criminal.

Because, also, it was felt that America, in dividing, was bringing on ultimate ruin on her free institutions; because the great misfortune of Europe is, that being under different governments, two millions of men are kept as soldiers—and large armies lead to despotic governments. Whereas America, up to the secession, neither wanted army nor fleet (to speak of), and that by the secession two nations would be formed, each of them obliged to keep up an immense army and fleet.

Because, also, it was felt that the South, in seceding to benefit slavery, was riveting faster those chains on a portion of the human race which advancing civilization seeks to knock off; therefore, the motive the South had was wrong.

If the North had seceded from the South, with the declaration, "We dissolve this partnership, because we will have nothing to do with slavery; but, when you choose, under wise regulations, to put an end to it, we will joyfully contribute our share to the expense, and we will then be delighted to resume the Union,"—mankind would have approved of that act, as consonant with advancing civilization; but they disapproved of the act of the South as one of retrograding civilization.

Such was the feeling, on the first declaration of secession, in the time of Buchanan.

But when the Lincoln Government came into power, the word "Rebel" was brought into use, and this jarred on the English feeling. It was no case made out of rebellion—it was secession. The men heading it were of the highest class of intellect and ability, and to style them rebels was ungentlemanly, unnecessary, and aggravating. This was an unworthy pandering to the passions of the lower classes by the Lincoln-Seward Government.

The affair of the Trent has produced a lasting alienation of feeling between the English and North American peoples. It was not Wilkes's act; that had nothing to do with it. We had had before the affair of Mr. Harney, and the United States Government promptly and satisfactorily arranged it.

But the glorifying ebullition of all the North —of those citizens, merchants, and distinguished individuals, whom we had hitherto considered as our coadjutors in the path of the civilization of

mankind — deeply affected the mind of the English people, and the more strongly when the united voice of Europe confirmed the justice of their feeling.

Since then the acts of the Lincoln-Seward Government have been a succession of tyranny, weakness, and vacillation. It would deny the South the fair usages of war, but shrinks before a just retaliation.

Under pretexts more or less plausible, it has assassinated the liberty the Americans were so justly proud of; and it has convinced the English nation that a government which tramples upon the rights of its own people will not much respect the rights of other nations, and that the time may arrive when Monitors and Warriors are to try the *ultima ratio.*

This ruin of all the liberal institutions of America has also caused another feeling to surge pre-eminent in the English nation, and in the French also; and that is, the danger from the continued increase of a nation which has substituted misguided passions for cool reason and justice, and that the United States people and Government only want strength to be unjustly aggressive.

With this feeling the English nation, deeply loaded with a heavy national debt, which it requires all her trade and economy to meet the demands of, naturally wishes that an aggressive government should be weakened.

Not that the English nation has any objection to fighting—John Bull's organ of combativeness

is very large indeed; it is only the distress it would bring on his wife and family that keeps him quiet.

Meantime the South, who commenced their secession under a very dark cloud, has conducted its affairs well throughout. That its generals have been better than those of the North may be matter of chance; but the tone of all the acts and speeches from the South has been straightforward, without exaggeration and without littleness, so that, little by little, the feeling of the English nation has increased in favour of the South, until it may be expressed in these words: We like you and admire you, but we anxiously hope that, as soon as you are comfortably settled, and have your house to yourselves, you will agitate the question whether you cannot remove the stigma which is attached to your institutions, and, as you must have the negro, raise him, instead of lowering him, in the scale of humanity.

ON THE ORIGIN OF THE JEWISH RELIGION

It is very curious to trace the origin of the Jewish Religion—not in the common way, but according to organ No. . Besides, it requires that one should have lived in the East to comprehend the why and the wherefore of matters connected with it. However—to summarize—the Jews were to the Egyptians what the negroes are to the Americans, precisely and entirely, as you may see by the obstetric regulations of the Egyptians. The Egyptians bred Jews—and finding at last that the quantity produced was so great as to threaten very seriously to inconvenience the Government by a revolution, they gave orders to the under operatives in the breeding establishments to kill all the male babies the instant they were born, which it appears was acted on to a very enormous extent. The practice of killing babies is so old as to be beyond calculation—sometimes the little boys, sometimes the little girls. In some parts of India, the little girls are killed to save the expense of the customary marriage settlement; this, however, is by the tip-top families, whose dignity would suffer by not giving the daughter dower enough. Notwithstanding this pruning process, however, the slave Jews were perpetually troubling the Government with mass meetings and resolutinos, and wanted to work only eight hours in the day,

and to have half-holiday Saturdays besides, until Pharoah got out of temper one day, and said they should buy the straw to make the bricks out of their own pockets. Of course a general turn-out took place, and Moses and Aaron came on the scene.

Now it is Moses particularly we have to do with—or rather Moses's education—which, owing to Pharoah's daughter having found him, (?) was a very perfect education, and such as would influence every situation he might fill during life: just as a boy educated at Oxford or Cambridge would be certain to carry cricketing and rowing to any part of the world he might go; indeed, I have often regretted the want of a University education on that account. However, I have a brother and a brother-in-law who had these advantages, and when they came home it was quite edifying to hear them; they always took the wrong side of the argument, which they explained as thus: any fool can prove that two and two make four, but to prove that two and two make seven, and that a crooked line is the shortest distance between two points, you must have a University education. Allah is great and Mahomet is his Prophet, thought I—this is what, I suppose, is called second-sight.

Well, so Moses had a complete Egyptian University education; he knew the snake dodge, which everybody who has been in India has seen done. Men come to your house with cobra capellas and other snakes, and make them dance to music; and if a lot of snakes were wanted now,

encased in wands, and which would come out and fight when the wands were thrown down, they might be had in any number in India. Then Moses had learnt all about subtle poisons, such as I have explained under the head of Hindoos; and as the Jewish women were slaves in the Egyptian families, that poisoning was easily carried out, as also the poisoning all the fishes and drinking ponds. Also Moses knew mesmerism, which you will see described as having been known thousands of years ago, and by which (miraculous) cures are said to have been performed. Mesmerism creates a flow of animal electricity through the nerves, and so cures cramps, &c., like Pulvermacher's galvanic chain.

As to locusts, of course they came every now and then, like the potatoe blight; and it was just as easy to say they came because the Jews were ill-used, as to say the cholera came to England because the people rebelled against the Government and insisted on Reform. I pass over the fleas, because we are not Egyptians; but T——, whose wife is rather stout, took lodgings at Greenwich, and he told me his wife and children were nearly eat up the first night, and they quitted the rooms early the next morning.

So at last, what with snakes, and poison, and locusts, Moses frightened Pharoah so that he let the Jews go, as he thought, for a three days' holiday. However, Moses knew well how Jacob had come the photographic dodge with Laban, and resolving to emulate his ancestor, he told all the maid-servants to borrow all the Egyptian

ladies' jewels and money, which they did, the mistresses thinking they were going excursioning with return tickets. When Pharoah found that they were all gone for good, and had carried away all the plate, money, and the jewels besides, he sent, of course, all the police, mounted and on foot, after them, and went himself too; but it was no use, they got clear off with the booty, and Moses, the graduate of the Egyptian Universities, became virtually king of the Jews, in the same way that in the East all kings and law-givers obtained their exalted position—that is, by representing that they were the mouthpiece of the Divinity.

But then, Moses was an Egyptian. I don't mean in the corporeal sense of the word, as I was not the father confessor of Moses's mama; but I say, that, if you take a Turkish baby, and give him from childhood a thoroughly English education, finishing at Oxford or Cambridge, mentally that child, or rather that man, at 40 years old, is no longer a Turk as regards his mode of thinking and acting, but an Englishman.

As we are now making a watch, let us begin with the main spring; or like a melody, with the original air, which is to re-appear in every variation. You see in the article "Hindoos," that whenever the priests had persuaded a Sovereign to endow the Church with a parcel of land, they called that land God's land, and it became the property of the Church, free of rent and taxes for ever.

Now, from India to Egypt: you see in the 22nd

verse of the 47th chapter of Genesis, that when Joseph, who was Chancellor of the Exchequer to Pharoah, had first taxed the people and hoarded up the corn; he then, with that corn, bought all the land, beasts, and cash of the Egyptians, leaving them perfectly penniless. "Only, the land of the priests bought he not, for the priests had a portion assigned them of Pharoah, and did eat their portion which Pharoah assigned them, therefore they sold not their lands."

However, Joseph completed his financial operation by returning the lands against a perpetual rent of 20 per cent. of the produce, and assuming the cost of cultivation to be 30 per cent., Pharoah became possessed of 2-5ths of Egypt (as his 1-5th was cultivated free of expense) for nothing.

It's lucky for the Irish, that Joseph was not Chancellor of the Exchequer at the time of the potato famine.

However, the Pacha of Egypt is doing just the same thing now. He has taken 50 per cent. of the shares in the Suez Canal—makes the Egyptians dig for nothing, charging the Canal Company for their labour, and will, by and bye, sell his shares and put the money in his pocket.

This, however, is a digression. Return we to Moses, educationally the Egyptian, with the programme "all for the priesthood." Moses had "sloped" with a nation of slave Jews. Now mark a curious link of 5,000 years. The Indian Brahmin eats with no lower caste; he will not even touch a pariah—to eat with him would be an abomination.

Now from Hindostan to Egypt, *see* Genesis, ch. xliii. v. 32.—"And they set on for him by himself, and for them by themselves, and for the Egyptians which did eat with him, by themselves, because the Egyptians might not eat bread with the Hebrews, for that is an abomination unto the Egyptians."

Now from Egypt to America.

The Americans will not allow the negro at table with them; even the twenty-fourth part of negro blood in a person causes him to be treated as a pariah, as regards any communion in eating.

They will buy of him, sell to him; nay, they even exempt the negro fair sex from the ban, for from the Presidents downwards, they have had the most intimate connection with the negro women; but, as to eating with the men, or even women, that is an abomination.

Singular link—are the Americans to be blamed for an instinct which seems to have existed in the whole human race?

Now, back again to Moses, with his motto, "all for the Priesthood;" or, as stated, Exodus xix. 6.—"The Lord said, ye shall be unto me a kingdom of priests." He had to commence the literature of the Jews with a book, which should forward the object he had in view, and which his Egyptian education fitted him eminently to write.

It was necessary so to write it, that the humblest understanding should be satisfied; and, accordingly, Moses related the making of the heavens and the earth in the simplest manner; most probably as adopted by the Egyptian priesthood.

Next came the creation of man and woman, related so that a child can understand it perfectly.

But here begins the priesthood, which I am rather inclined to think, from the presence of the serpent, is the Egyptian version.

The non-venomous serpent, in Egypt, was like our cats, in all the houses; these serpents lived on cockroaches, beetles, lizards, and all those insects which infest houses in hot countries, and were petted by the inmates.

As to the serpent's talking, we have Æsop's fables, and Balaam's ass; so that we need not be surprised at that.

But it was necessary to begin with mankind, by impressing on them the results of disobedience, and the serpent being well known, was adopted, to induce Eve to disobey; and, of course, poor simple Adam, as all Adams are, was involved in the crime and the punishment. Having thus made his *debût*, Moses peoples the earth pretty fast, until he arrives at the next catastrophe, which is to teach mankind obedience—the Deluge.

Now, to threaten the mountaineers of Switzerland with a deluge, would be talking Greek to them; but in Egypt they have annual deluges. When the Nile overflows, all the land is covered except little hillocks here and there; and there is no doubt, that at some periods, owing to the unusually rapid thaw of the snow in the central mountains of Africa, added, perhaps, to an unusual height of water in the Mediterranean, tremendous deluges have occurred; it is very probable, therefore, that the deluge part of the

Jewish religion is purely Egyptian, and as, whatever disasters happened to the human race were represented as punishment for their wickedness; so the deluge, an occurrence in a minor degree which every child saw every year, answered the purpose very well. Having now sufficiently punished the human race to make them attentive, Moses then makes use of the rainbow as a promise that if mankind will be good, they shall not be drowned any more; this, also, may very probably be of Egyptian origin.

Moses then takes up the history of the Jews, which probably was well preserved by Joseph in the archives of Egypt. As to the direct and verbal interference of God in every thing whatever, we see that Moses never issued an order or made a law as coming from himself: the Lord had told him to tell the people to do this or that. If not entirely, this was most probably of Egyptian origin—for the Egyptians had their soothsayers, and diviners, and magicians, and interpreters of dreams; and this method of issuing orders and making laws, enabled the system to be perpetuated without break; whereas if the laws and commands had been issued in the name of Moses alone, at his death some demur might have been made; whereas, being represented as the commands of the Lord; his successors, or, with the Egyptians, the priesthood, could continue in the same manner.

As to the Jews, they were told that they were the peculiarly favoured nation on earth, although really, to read their own history of themselves, their dictionary had not the word honesty in it; for

Jacob cheated Esau of his birthright, and Laban cheated Jacob, in the matter of substituting Leah for Rachel; and Jacob cheated Laban about the cattle; and Rachel stole her father's goods and told him a falsehood; and Joseph's brethren sold him and told a falsehood to their father—so that we may well believe that, when they left the Egyptians, they robbed them of everything they could carry away.

Now the Egyptians were a warlike, proud, strong, and rich people. All the gold and precious stones from Central Africa flowed to them; and we every now and then see, when we take a city like Lucknow or Delhi, what enormous quantities of gold and jewellery are in possession of the ladies of the upper ranks. There is very little doubt that the amount of gold and jewels, which the Jews took with them when they quitted Egypt, was almost fabulous.

And as to their morality, it is pretty clear that they had an abundant share of "the social evil" among them—(will the ladies kindly step out of Court for five minutes?)—for THAT is clearly proved by the surgical operation, which like all other things, the priests told them, the Lord commanded to be performed, although it might be remarked that if God created man as Moses told them, in his own image, he would not stand in need of a surgical operation afterwards.

The fact of the matter I believe to be, that they had "the social evil" and its consequences, which in hot countries become as bad as the plague; and they did not know how to cure it.

inasmuch as unguentum mercurii, blue pills, tincture of iodine with tannic acid, iodide of potash, and extract of sarsaparella (about the last I am not certain) had not been discovered; and some Dr. Jenner of that time, having observed that patients which had undergone the operation, were not liable to the disorder, communicated the discovery to the priests, and the surgical operation was forthwith rendered obligatory on every male, as the command of God. Perhaps you will say, I ought not to have alluded to this; but as the Bible, which is put into every young person's hands to read, as a duty, goes most fully into the detail, it may be questioned whether I am much in the wrong.

However; to return to Moses. Having made use of the serpent, and the deluge, and the rainbow, he then pressed into his service a volcano in eruption to bring down the Ten Commandments. —Exodus, chap. xix. As to all the genealogies he gives, they are clearly an Egyptian custom; and even now, if an Arab sells a horse he has a genealogy with him.

The laws which Moses laid down for the Jews were, most likely, only copies of Egyptian laws; for we see that the laws in Egypt were very severe, as Moses, having killed a man, was obliged to abscond to save his life.

Thus Moses endowed a magnificent priesthood; in the name of the Lord, he gave all the towns and countries they could conquer to the Jews, with liberty to kill all the men and appropriate the women and children. But this priesthood, with

all its dresses and paraphernalia, was entirely borrowed from the Egyptians. There is no mention of priesthood in the times of Abraham, Isaac, and Jacob; and from the extremely accurate description Moses gives of the dresses, and ornaments, and duties, it is most evident, that the Jewish religion is but a graft on the old Egyptian.

Having now given what may be called a general idea, let us dissect the subject a little more.

The theological religion given to the Jews by Moses, or, which he found among them, and defined by his history of the human race, was a pure deism; but not a deism as we now understand the word. Quite different. The earth was supposed to be a flat plain, bounded by water all round; the earth was everything—for the sun, which rose and set every day, was merely a kind of lamp to give light by day; the moon the same by night, with the stars for ornaments. Nothing was known of space, or size of bodies. An Egyptian would have told you, that the sun and moon were about as big as one of our family globes.

God—the Deity—was represented as a man in person, and with like passions as ourselves, living on the earth, talking to whomever he pleased: now making a suit of clothes for Adam and Eve, now punishing mankind for disobedience by any of the ordinary operations of nature, rendered extraordinary for that special occasion—such as flood, or fire, or poison, or locusts; for it must be remarked that the deism was pure; there was no devil; there-

fore everything that went wrong was punishment for the wickedness of mankind, who had not obeyed the voice of God as communicated by the priest, the said priest being able at all times to go and consult God, and bring his answer and orders to the people; in fact, God was made to do or to order everything directly (through the priest), even to the ordering the best tailors to be got, and giving the dimensions and manner of making the priest clothes, with as much exactitude as the sovereign of a country or the commander-in-chief orders the exact sort of regimental uniform which shall be worn by the generals and officers, and the decorations. Besides, God is represented as the source of all laws, of eating and drinking, and marrying and going to war; in fact, all exercise of thought in any action of life is taken from the man and merged in God, who issues his orders through the priest.

Some persons may question if such a belief could actually and bonâ fide exist. Certainly it could. There are many thousands of intelligent, well educated and wealthy persons in England and America, who believe themselves perpetually surrounded by departed spirits, who move tables and chairs, write letters, carry people about, and do all sorts of things through people whom they call mediums; and who are, as regards that species of religion, the priests. The method is to do or find out something which cannot be accounted for, and then connect intelligence with it; for instance, if a magnet was concealed in a stick, and a piece of gold hidden in the north corner of

a room, and the stick suspended by a string, and made revolve, and then a child was told that the stick had a divining power, and when it stopped would point to the gold, the child would believe the stick to be possessed of intelligence.

It is, however, very worthy of note, that many times when the Jews were short of food or water, they did not reproach God; they said to Moses, Why did you bring us out of Egypt, where we had plenty to eat, and now we are starving? From which (so often reiterated) it would appear that Moses was the direct instigator of the movement. The manner in which Moses managed his deism was, in substance, exactly the same as the Egyptian priests with their polytheism, or whatever religion they had; for we see that whatever dream, &c., Pharoah had, he forthwith referred it to the priests. And we may pretty well judge of the temporal effects of a religion by its temples, and the tombs and funeral rites performed; and certainly, looking at the Egyptian temples, pyramids, sarcophagi, and embalmments, their religion must have been the most expensive and magnificent the world ever witnessed.

Moses, having been obliged to fly for murder, seized the opportunity of putting himself at the head of the movement. The rest is simple; the costumes, tithes, mode of worship, and laws of the Egyptians, he had by heart, so putting himself at the head of the people, he proceeded to organize his kingdom.

Moses was a man of a capacious mind, and went very straight to his object; in fact, the wars

the Egyptian kings engaged in, or rather man hunts, as they should be called, rendered much doubt on the subject needless; therefore, having first conveyed to the Jews the intelligence that the Lord had delivered such or such a nation into their power, and sent spies among them, he proceeds to give the Lord's commands to the army. Deut. xx. 13. "Thou shalt smite every male thing with the edge of the sword, but the women and the little ones, and the cattle and all the spoil thereof, shalt thou take unto thyself."

This was a priestly command, for this reason: an ordinary government or monarch would have been satisfied with conquering the people and annexing them, letting them continue in the same religion as they were before; but that did not suit the priestly government, as the nation would then have gone on paying its own priests; but by killing all the males, and taking the women and children, the whole nation was converted at once. And as regards taking care of his own caste—the priests; besides tithes, and offerings, and atonements for sins and other profitable arrangements, we find that in war, Jos. vi. 19. "But all the silver and the gold, and vessels of brass and iron, are consecrated to the Lord, they shall come into the treasury of the Lord." And the penalty of hiding any on the part of the Jewish soldiers was, Jos. vii. 21, "being stoned to death."

Occasionally, however, Moses varied a little his interesting way of making war, Jos. viii. Here he got all the men out of the city by stratagem,

and then burnt all the women and children, afterwards massacring all the men; and, again, Jos. ix., if a nation was so afraid of him, that, adopting the "peace at any price" system, they made peace and submitted to him; he made slaves of them, *i.e.*, hewers of wood and drawers of water, or probably came the Egyptian over them, and made them make bricks without straw.

What more is to be said; he made excellent laws. Of course he did, as between man and man; so the Code Napoleon is the model of laws, though Napoleon I. himself was the most arbitrary of monarchs. Excellent laws Moses made; the man who, in the name of the Lord, massacred, burnt, and robbed, and made the law (of course from the Lord), "Thou shalt not covet thy neighbours' house," etc.

Then, as the programme of the religion Moses developed to the Jews, had not the scenery of a heaven with everlasting bliss, or a hell with everlasting flames to enjoin obedience with, Moses was obliged to confine himself to earthly benefits and earthly sufferings, to arrive at the same degree of submission to his laws; and, certainly, the amount of blessing and cursing in the 28th of Deut., particularly of the latter, are on a scale which shews Moses to have been a man of a most comprehensive mind, and who did not do things by halves.

The fact that the whole of the effective Jewish religion originated with Moses, forces itself on the mind, from the circumstance that it does not

appear that the Jews had any religious organisation at all under the Egyptians, any more than the negro has under the Americans, if so much, for we see nothing mentioned of any priesthood or laws; probably the Egyptian priesthood would not have tolerated it; in fact, their condition of perfect slavery to the Egyptians, to the extent of suffering all their male children to be killed, accounts for the total absence of any legal or religious government among themselves.

Moses was, in mind, the proud, haughty, and well-educated Egyptian, that is clearly proved by all the minute and exact details he gives on every subject, nothing escapes his detail; even the tailors who sewed the priests' robes could not make a false stitch; and the exactitude of his admeasurements for the Ark of the Covenant point to the probability of some such sacerdotal object having existed in the Egyptian temples.

Moses made his calculations well; the sacerdotic aristocracy became rich and powerful, and the nation became immense; for the plan of killing all the males of their enemies (in the name of the Lord), and taking all the women and children, did not at all stop population, polygamy being then as much in vogue as it is now reprehended; each man took a wife or two extra, and all went on as usual, until, at length, the Jews became, as the Egyptians, a nation of priests; and the glories of the Egyptian temples were copied in the temple of Solomon.

However, the same phase had to take place with the Jews as with other nations governed in

the same way; that is, priestly domination and immense riches in the upper classes, with forced servility and ignorance in the middle and lower classes, and which is the invariable concomitant, create what may be likened to a tree which, growing in the rankest ground, flourishes apparently luxuriously, but bearing in its core, the germs of its own destruction; and when external force destroyed the head, the whole decayed; and so, whenever the priestly power was overthrown, the middle and lower classes had not intelligence enough to lift the nation again; so fared it with the Egyptians, now a nation of slaves; so fared it with the Jews; so has it fared with the Brahmins; and in the same road the Turks are travelling, without the possibility of a halt.

The real key to the state of religion and belief in any country all over the world, from China to America, and at any period of the world, is the state of the sciences, and the slavery or independence and education of the middle and lower classes. The Jews, notwithstanding their cunning in working gold and silver, were in the lowest state of slavery and ignorance; and the arts of chemistry and astronomy, which are the microscopes (so to say) of the machinery of the universe, hardly existed. Earth, air, fire, and water were the elements; the sun, moon, and stars were lanterns; and Joshua, when he ordered the sun to stand still, thought no more about it than we should of saying to a servant, "Don't turn off the gas, as I have two hours' more writing to do." The necessary mathematical consequence of that

state of the sciences was the personification of God in a human form, and endowing him with every human mental quality, from unbounded love and justice, to hatred and revenge even carried to future generations, or of dividing the same attributes and passions among a number of Gods; for whether the same species of actions (*see* Joshua, chap. x. verse 11) were enacted by one God as Moses established, or by ten as the Romans had it, mattered very little. And further, as the sun, moon, and stars were mere illuminators of small size, the earth was the only place where the God could be located; and as the phenomena of thunder, lightning, wind, rainbow, hail, and volcanoes could not be explained in the then state of chemistry, the God was supposed to be perpetually employed in these operations (as an engineer is in shutting off and turning on steam), and amusing himself with either protecting or punishing some favoured people. Then, having their God in human shape with human passions, they endowed him with human senses, and hence all over the world, the offerings of flowers and burnt offerings and incense; and to make those offerings, in every family a table or altar existed, on which were put the images of the God, and on which flowers and fruits were and are, all over Hindostan, daily offered. Hence, from all parts of the world we get images, such as Rachel carried away from her father Laban, and which she considered would bring her husband good luck.

Having demonstrated that the state of religion was the mathematical result of the state of the

sciences, two or three sequences inevitably follow:— first, that 1,000 or 10,000 years might pass in a country, and the state of religion would remain exactly the same, as long as the sciences made no progress, just as it is now in India; next, that when the Sciences attempted to take their sister, Religion, by the hand, they were rudely repulsed by despotic governments and vested interests, who claimed her sole guardianship. Moses, who did things very effectually, put an extinguisher on any new doctrines by stoning; and when, afterwards, astronomy pointed out an enlargement of the universe by the sun being a centre, astronomy, in the person of Galileo, got put into prison. Geology then having hinted to her sister, Religion, that her dates were wrong, has received a rap on the knuckles, and been told that her calculations, however made, must be in six epochs, to correspond to six days; whereas the real matter of fact was, that Moses never issued an order of any description without two adjuncts: first, that the Lord commanded it; and secondly, bringing in some alleged sin of mankind, or some phenomenon of nature, as a reason. Moses founded an aristocratic priesthood, which absorbed all the riches of the nation, of exactly the same sort as existed at the same time in India and Egypt, to the exclusion of every vestige of share of the people in the government. It is just as likely that the Jews worked six days in Egypt and rested the seventh as not, because the other commandments against robbery and murder were equally laws of Egypt, as we see in the case of Moses, and in the case of

the cup of Joseph in Benjamin's sack; it is even most probable that throughout all Egypt the seventh day was a day of rest, and, like the Hindoo holidays, devoted to religious processions and rites—just as to this day, in Hindostan, the Europeans are obliged to suspend all business on the native holidays.

The intelligent middle and working classes of the present day want to alter Moses's allotment of time. Moses said, work six days—do nothing one day. They want introduced into the week somehow a portion of time devoted to education—manhood education; and the question in abeyance between the church, the masters, and the workmen is, whether manhood education shall be deducted from the Sunday rest, or from the week-day work. Certain it is, that after a man has worked hard the whole day, whether at the trowel or at the desk, he is neither fit for, nor inclined to, much mental exertion in the evening.

But if the corollary I have drawn, that the religions of primitive ages have been materially altered by the advancement of the sciences of astronomy, geology, and chemistry, then these sciences form really a part or motive power of religion, and are fully as well entitled to share in the mental exercises of the Sunday as any other religious studies or reflexions.

Moses allowed for no education—the education of the masses would have overthrown his government; they might have insisted on every man having a right to an opinion of his own, and brought on tithe questions, church-rate questions,

and even disputed the point, that a bad harvest was a punishment for their sins;—all which, of course, did not suit Moses's book.

So the tree Moses planted, and watered with ignorance, superstition, murder, robbery, and slavery, flourished luxuriantly, until the causes of its greatness and splendour worked its utter downfall and ruin.

FURTHER REFLECTIONS

ON THE

ORIGIN OF THE JEWISH RELIGION.

This book would have been published without the following observations or details, if it had not been that some friends, who have perused the proof-sheets, have taken much interest in the article; and, so encouraged, I go over some of the ground again.

When I was in Rome (a year ago) some money was transmitted me, to hand to the Secret Roman Committee. The Secret Roman Committee is a governing myth of the Liberal Party. Nobody knows who they are. A printed paper is handed you, desiring or requesting forbearance from a certain demonstration. It was found somewhere—on the stairs. I feel quite sure that X——, who visited me, was one. He always told me everything that happened, or was going to happen, before any one else; and, when I went to his palace, the first servant that opened the door never knew whether he was at home or not; and, when all sorts of liberal opinions were talked around him, he seemed as abstracted as if he were thinking on China or Japan, but he lost no word spoken; and, when he was alone and unreserved, out came all; but, not that he was one of the Committee.

However, I went to a friend and told him, and asked him if he could hand the money to the

Committee? He said, "he would take it and see." Next day, he said, "Tell your friend it's all right."

You ask me if this have anything to do with the Jewish—or, more properly, the Egyptian—religion? Yes, it has. This is the counterfeit; now for the plot. You recollect the comet, about eighteen months ago? I went with —— to Father Sacchi's observatory to see it. The observatory is in the Jesuits' College. I had read of Loyola and the Jesuits, but never was in their nest before; or, what is more, never had any reliable explanations. Well, when the Jesuits come down to dinner, one of them finds under his plate a note. He is off (all their kits are always ready), in one, three, six, twelve hours to Madrid, Paris, Vienna, or anywhere he is ordered to go to, to obey implicitly the instructions given to him. A whole College of highly-educated men—doubly-educated men—men educated to make wrong appear right—all ready at a moment's notice to go anywhere. Why all this machinery? you ask. I'll tell you. The King or Emperor governs the nation—the Queen or Empress governs or strongly influences the King or Emperor—the confessor governs the Queen or Empress—the Pope and the College of Cardinals govern the confessor—the Jesuits are the envoys, and the nation is governed from Rome. Why? To get dominion, power, and riches, as the Egyptian priests had 5,000 years ago—as Moses, the Egyptian, transmitted (the machinery) to Solomon, and from the Temple of Solomon to the

Church of St. Peter is a very short stage, and from St. Peter's in Rome to Notre Dame in Paris, and St. Paul's in London, your ideas are not "froissés."

Whether what is called the Jewish religion be entirely Egyptian, or partly Hindoo, is too far back to be traced, but there are very remarkable coincidences which I will point out to you. The Deity planted a well-watered garden, and walked in the garden in the cool of the day.

Are you reading an account of the Creator of the Universe, or a Court Circular of an Eastern Sovereign?

Then you must notice the animus of the whole history, namely:—"Blind obedience to the priests, and absolute belief that the priest represented God himself, as a prime minister of an absolute sovereign represents him and acts in his name."

This animus is beautifully shewn in the garden, the snake, and the woman.

It would have been difficult to contrive a reason to punish two beings just created, and yet it was necessary to start with a striking example of the necessity of blind obedience, so there is adapted for that, the forbidden fruit and the serpent—clearly Egyptian. Look at every Egyptian obelisk, it is covered with serpents. As to the serpent talking, look at Pharaoh's dreams, and you realize the belief of any chimera.

You must recollect that this history is well written for slaves, for young children, and grown up (mentally) infants. Then the sin is a sin of eating; all the laws of caste in India have eating

for the fundamental distinction. In Egypt too, for the Egyptians appear to have borrowed Hindoo caste customs, as it was an abomination for them to eat with Jews.

Poor Adam and Eve! God teaches every bird, beast and fish what it ought to eat and what to avoid, without any priest to explain it to them. But, poor things, they could not commit murder, for they were not likely to hurt one another; and there was nothing to steal, for the property was all their own; and they could not covet, for it was all given them; and Eve was the happiest woman in the world, for she had nobody to be jealous of; and Sir Creswell Creswell's court would have been of no use, for Adam had not a chance of going astray. Even Rowland Hill, who used, during his sermon, to point out his wife as an instance of vanity in dress, must have found some other weak point in Eve, to hang his observations on.

But sins, says the church, are of omission and commission; and, between the two, we are sinning from the time we get up in the morning till we go to bed at night (at least). However, I have one comfort, my brother who passes for a model man, is always up five or six hours earlier than I am, so he must (according to Cocker) commit proportionably, more sins.

But, to proceed, the first occasion sought to enforce the example of severe punishment for disobedience, is the very thing which, for 5,000 or 6,000 years, has constituted the basis of the governing laws in India—eating what was forbidden. The laws on eating, being so very strict

in Egypt and India at that time (in India now), gives rise to the conviction, that the whole of this legend dates from the remotest Egyptian or Hindoo times.

What more impressive lesson for the priest to read to a child, who was to be taught that eating forbidden things was the most deadly sin, than the dreadful punishment inflicted on poor Adam and Eve. Turned out of a beautiful garden into the wide world, to work for their living.

Moses, the well educated Egyptian, could have got that legend from no other source but the transmitted Egyptian legends, and the ideas Moses gives of the Deity correspond with those of the remotest times of antiquity. His God makes a garden, walks in it (at the cool of the day too), talks, likes this sacrifice and not that, is loving, jealous, revengeful even to future generations; in fact, it is the history of a human being.

Now for the intention. In the present state of science and religion, the distance between the Creator of the universe and man is considered so immense, that we do not admit (in Protestantism) that man is so on a level with the Deity, as to be empowered to wield his highest prerogatives—those of rewards and punishments.

But, in remote ages, when the priest represented the God as a man, with all the corporeal and mental attributes and passions of a man; this dogma being received, it was easy to represent that he had seen God and had instructions from him.

As to the working six days and resting the seventh, which enlightened and worthy divines wish to explain as representing periods, in order to reconcile them with the advances of geology. I believe that the legend Moses has handed us meant really, that the earth, sun, moon, stars, and all things were begun to be created on the Monday morning, and were completed by Saturday evening, and God rested the Sunday, literally; because, that these would be all of a piece with the making the garden, walking in it, talking, &c. To suppose that there was hidden under these six days a mystical meaning of six periods, is detracting entirely from the simplicity of the narrative. The fact was simply this, as about the apple, a tremendous punishment was held up as an example, so, in order to secure the seventh day solely to the priests, the most impressive reason was given for the commandment, not that there was any more reason in the command than in the punishment, as one day's rest in six would suit as well as one in seven; but, the priests had fixed one in seven, and so they turned the creation of the world to account, in order to furnish a reason for a divine commandment.

Protestantism was enthroned in England with ardour by the throne and the people, to escape from the slavery and all-absorbing greed of the Roman Catholic religion. But, in changing the religion, the greatest care was taken to spare the susceptibilities of the people as much as possible, and to render it easy for the conscientious Roman Catholic to slip into Protestantism, by

the liberal interpretation of the tenets of the new religion.

Hence has arisen all the divergences of creed at present in England, commencing with Puseyism, which is the first station after you leave the Roman Catholic territory, and going on to those remote dissenting stations, where hardly a vestige of the original Protestant Established Church remains.

MATHEMATICALLY.

You are, reverend sir, an archbishop—a bishop—a clergyman; and, I am to prove to you mathematically or algebraically, or to the satisfaction of a jury (I beg pardon, an independent and enlightened jury) of Englishmen, that Moses's account of the Creation did not originate with Moses; but, at least, with the Egyptians, ages before Moses.

I would much rather have a university man to argue with. He comprehends a subject better, and is not afraid of it; whereas, Smith, Jones, and Robinson shelve any question which interferes either with their interests, or their standing in society, or with their wives' feelings. You may talk those things over with them as freely as you like over the wine and cigar; but, when you go into the drawing-room, where the mamas and the daughters are, you must be as demure as —— I can't find a simile.

Have you ever been inside the centre (largest) pyramid? I think it is Cheops's. If you have not been yet, you will thank me for a hint. Make those Arabs bring in a chair, so that when you get (tired with passing through those long granite passages with your body bent) into Cheops's private room, in the middle of the pyramid, you may have something to sit down on to rest yourself. The Arabs don't care, they squat down on

the floor; but, when one gets into the sanctuary of a pyramid, one wants to reflect—to muse—to consider; and that can't be done standing, with one's back aching. I got into Cheops's sarcophagus and lighted a cigar. I wonder whether a good powerful spirit medium, with a table, could have held a conversation with Cheops's spirit. People, as sensible as any on the face of the earth, believe that dead people's spirits come and communicate, if they are above, and come 50 years after they are dead. Why not 5,000? Of course, Cheops could talk English. I mean his spirit. If I go on you will think I am daft. But I assure you I have heard, within the last three months, from the most sensible, scientific, educated men and women, such extraordinary things about spirit communications that, if they be true (mind the IF), a conversation with Cheops would have nothing extraordinary in it; and, of course, the most likely place to find him would be "at home."

Reverend Sir, you have written many sermons, and well know how to make your approaches to the point you want to prove. I have not your capacity or education, so you must excuse my shortcomings.

The pyramids, you have seen or read all about them. Well, Moses's work on the Creation, or that which I shall prove to be the Egyptian work, looms ten thousand times larger than the largest pyramid.

Those heaps of stone have influenced or given ideas to how many men? Perhaps, ten millions.

That simple tale of Moses has stamped the

belief, the fate, the thoughts of more than fifteen thousand millions of the human race.

There are two ways of making people believe: instructing the young and killing the old. The child believes anything, particularly when presented in a homely and familiar way. As for the old unbelievers, by stoning, burning, torturing, imprisoning, or persecuting one, you frighten fifty thousand out of allowing a shade of unbelief to enter their minds.

It is the first impressions on the *child's* imagination which are of the greatest importance to the religious lawgiver. Of the grown men, but few aberrate afterwards; of the women, none.

Now, to what end does Moses's account of the Creation, acting on the youthful mind, tend? To neither more nor less than positively, absolutely making a man into a God.

Observe very carefully that the simple, relational means by which this is carried out, is by first making the God into a man—who acts as men do, and talks as men do; and, the impression is rendered more vivid, by the child being told that God made man in his own image.

This stamped well on the youthful mind, and impressed by all the phenomena of nature, interpreted to aid the impression, it follows, without at all shocking the probabilities, that God should talk to the priest.

This belief thoroughly established, it follows that the priest becomes virtually the God.

When you admit that the priest alone talks to God, and receives commands from him, and that

nobody else sees God, the priest becomes virtually God: he becomes infallible, for he is the direct instrument of the Deity.

Does he want to conquer a nation—to massacre the men—make the women and children slaves—appropriate all their lands and goods?—he merely says God told him to do so. Does he want to stone or burn all unbelievers in his direct agency? he says God has ordered him to exterminate them.

The sagaciously-constructed and successful religion of Mahomet is constructed exactly on the the same theory—direct communication with the Deity, as taught to the young—and death to unbelievers.

But all this is not done for nothing. It is not done as you buy a book on chemistry, or geology, or astronomy. The man usurps the place of God to get power, dominion, riches—to make his fellowmen slaves to him and his sect—to build and endow temples, cathedrals, convents, nunneries, mosques, and so possess the land.

No temples are built to the sciences which are labouring to make known the real way in which the Creator has formed the universe and man. The temples are built in honour of a history or legend, wherein, by representing God a man, the man made himself a God.

If a prime minister govern a nation, make war and peace, make laws, inflict punishments, lay on taxes, and accumulate treasures, and all in the name of a sovereign whom nobody sees but himself. Who is king of the nation?

Can you, reverend Sir, confute these arguments

mathematically? If not, I have made out half of my case.

Now for the rest, but that is a matter of very strong inferences.

If a man, who had been brought up in a watchmaker's manufactory in Geneva, went among the Indians and published a book on watchmaking, should you say it was his own invention, particularly when that book indicated exactly the same results as were attained in Geneva, describing the same wheels and machinery as those used in Geneva?

Well, the priesthood were everything in Egypt. The kings made war and got slaves and gold, but the priests ruled all, from king to ryot, and built all over the land temples, monuments, obelisks, pyramids (for the tomb of the king was the thought of the priests) the nation worked but for the priests—the priests interpreted dreams,—soothsayers, diviners,—in fact, the priests constituted themselves the mouthpiece of Divinity.

The jury have, on this evidence, to decide whether Moses's account of the creation was original, or borrowed from the Egyptian University in which he studied.

November 20, 1862.

Since the foregoing was in the press, Bishop Colenso's Work has come out. I read it last night. I should alter the title, and call it "Colenso on the Slavery of the Mind." The bishop, a slave to a vested interest, writes a most respectful book to his masters, to state to them, in the most delicate manner, that there must be some mistake—that an ordinary camel, as we understand a camel, could not, even at the commencement of the world, or at any subsequent period, have passed through the eye of an ordinary needle; or, in other words, that what is totally impossible can never have happened. And the bishop begs his employers or owners to allow him to be an honest man, and teach what he thinks, without stopping his salary and discharging him, and obliging him to become a beggar, or gain a precarious living. Oh, my friend Colenso, are you such a child, as not to know that a vested interest yields nothing! Go to Rome, and study deeply the "non possumus" of the Pope. The vested interest of the Church of England is the continuation of that non possumus—the non possumus of the Pope is the continuation of the non possumus of the Jews, as St. Peter's is the continuation, ideally, of the Temple of Solomon. The Temple of Solomon and the non possumus of the Jews are the continuation of the Egyptian

temples and non possumus. All one vast continuation of slavery of the mind—chains riveted by vested interests. Very lucky for you, Dr. Colenso, that you did not live under Moses, he would have had you stoned to death,—or under the Popes one hundred and fifty years ago, they would have made a bonfire of you,—or in Spain at present, they would put you in prison for life.

You, Right Reverend Father, only look on one side of the question; you want to be an honest man, and that you may be an honest man, and teach what you believe, you want to knock down a vested interest which brings in fifty millions a-year. This cannot be allowed; for in pulling away the foundation stones, you endanger the whole edifice. True, the foundation stones are very rotten; but the incumbents say, as the slave owners say, we had it from our fathers, and it pays very well, and we will fight for it. So there are two wars—one in America against bodily slavery, one in England against mental slavery. The American slaves will get their liberty before the English slaves.

Perhaps you will reply, that there is perfect freedom of religion in England—that is the most ingenious fallacy that ever was perpetrated; so it is in Spain, but you must not preach anything but the Roman Catholic dogma; so it may be in Turkey, but the endowed dogma is Mahometism.

To understand how freedom and slavery, in the subject of religion, can exist at the same time, you must comprehend that the human mind in infancy (and in grown up ignorance) is like the

potter's clay, and can be moulded to any belief, or more truly and chemically, like a prepared sheet of photographic paper, on which you can print anything. A nursemaid may go on telling ghost stories to children till they go into convulsions, if left in the dark. Now when, throughout the length and breadth of any country, an endowed dogma is preached, and the religious rites of birth, marriage and burial regulated by that dogma, and as far as possible, every other mode of passing the day of rest, except in attending the temples of that dogma, are forbidden or discountenanced, that dogma, be it Protestant, Catholic, Jewish, Mahomedan or Hindoo, becomes infallibly imprinted on the minds of the youthful and the uneducated, the impressionable and the timid part of the nation, and these form about 99-100ths of the nation, and the minds of the people become like sparrows in frosty weather; they are quite at liberty, they are not obliged to go into the trap, but they are very hungry, and there is food in the trap, and they can't find any anywhere else, and so they are caught.

If religion be perfectly free, let one half of the churches the people pay for, be devoted on Sunday forenoon to "sermons" on social science, on geology, and astronomy, as compared with Moses's account; on the duties of parents to their children, which Moses said nothing about, but which the Creator has taught every barn-door fowl, and of which the sequence would be the honouring our fathers and mothers; and on the onward march of the human mind. Let the other

half of the churches continue the service and sermon as now practised, and you will soon find out what freedom of religion is. The social science churches would be crowded, for mankind and womankind most earnestly seek intelligence. By this means the vested interest, which you naturally so cling to, would not be interfered with, and the nation would be grateful to you, to an extent you have not at present any idea of; and then, instead of a Zulu savage making your Cambridge educated Bishop feel embarrassed and ashamed of his religion, your missionaries would be the representatives of an enlightened nation. Are they so now ?

If you don't like that, allow those talented men, whose scruples do not permit them to devote themselves to your service, to give lectures on the Sunday forenoon, and then religion will be a little more free—as the sparrows will have a choice.

However, Dr. Colenso, if enabling people to open their eyes and see be rendering them a service, you have rendered a signal service to the benevolent subscribers to the missionary societies.

A South African Zulu opens your eyes to the shortcomings of a Cambridge education. The same thing has happened to hundreds, perhaps thousands of the missionaries sent out—but they were good young men, and took their wives out with them, and depended on their salaries from the missionary societies for their subsistence. Men must eat and women too, and of course, when a true report of the insuperable difficulties they found in gaining credence for their dogmas might cause their dis-

charge and entail starvation, they very wisely gave glowing accounts of the conversions they made, and, as Mr. Hudson would say, "made things comfortable." I speak of what I have seen and heard.

To believe anything is not blamable, people only say, "I am surprised at your believing it." To propagate false reports and false doctrines is neither actionable nor punishable. Emperors, kings, prime ministers, and generals-in-chief set the example when it suits their interest. Truth is then weighed in the scales with interest, and laid aside when found too light—as the truthful maid-servant broke the tureen, and, to avoid its being stopped from her wages, said the cat did it. There is only one other view of the question—that is, the paying for a false belief; if voluntary, that is your own business, and you can stop when you alter your opinion. If obligatory, it is like being obliged to pay a lecturer for declaring that the earth is flat, and the sun goes round it—then you are obliged to pay a man to shew you the wrong road, and you do not arrive at truth, the object of your journey.

Besides, my dear Doctor, I am rather surprised at your education having been so neglected, that you do not know the real nature of belief, as established by the Sovereign and head of the church of these realms, and explained by high authorities. Allow me, by a short anecdote, to add a mite to your Cambridge education—it may materially serve also those intelligent young men, who you fear may be lost to the church through scruples of conscience.

It has so happened that I have had occasionally to receive large sums of money of the Government, and, years ago, before getting the Collector of Customs' order on the Treasurer, I always had to swear a solemn oath, ending with "So help me God," that a certain article was *bonâ fide* the produce of His Majesty's Possessions in the West Indies. Now, as I never had been in the West Indies, and am, moreover, one of the most conscientious of men, I always used to kiss my thumb instead of the bible; but that would not do, and the authorities at times said, "You must kiss the Bible, Sir!" There is pleasanter kissing than a black greasy bible, but, when it forms part of the Custom House regulations, you must submit to it.

I see that bible mentally now as clearly as if I had to give it another kiss. It was an old black bible, which I believe had been sent down by the Government when the Custom House was built, and had done duty ever since, and what with the thumbs and the lips, it looked as if it had been used by six generations of cookmaids.

Now, my fingers are itching to make another digression on the subject of kissing; and as the bench of bishops prescribe kissing as an obligatory ceremony, I think I have a right to investigate the nature of a kiss. Very few people know any thing about it. I don't think you do, ma'am. A kiss is a magnito-odylic-chemical action, the nature of which you will find described in Baron Reichenback's "Researches on Magnetism, &c."; and to save you the trouble of reading the 463 pages,

I will mention, that the "true nature and significance of a kiss" (to use the author's own words) is explained in section 255, page 193, where you will see why some kisses are sympathetic, while others are antipathetic.

As I am out of my walk again, but, as it belongs to the subject of kissing, you may as well come with me to the Mountains of Bohemia, where I used to spend a month in midwinter, after the the earth had put on its ermine of snow. When I arrived, I knew what I had to do. From the old grandfather and mother, who could hardly move from the chair at the fireside, to the worthy father and mother, to the fine youths and blooming girls of the family down to the baby in arms, if there was one, evey one had to be kissed. As for the girls, they said to themselves, "He is come to take us out sledging by day, and to waltz with us at night." And the kisses they gave were not like the "portion" of a French Traiteur, but like a good hearty English plateful. Well, I found a wonderful chemical difference in the kisses: the grandfather, uncle, father, and brothers' kisses were to me antipathetic, whereas the young ladies' kisses, from sixteen upwards, were strongly sympathetic; as for the babies, it was like kissing milk and water.

Then began our life; in vain the uncle said, "You had better make your wills before you get into a sledge with him," they cared nothing about being rolled over on the snow, only got up, shook themselves, laughed, and jumped into the sledge again; and then at night, at the balls, there is a

custom in Bohemia, you are expected to waltz at least once, with every young lady you know, and if you forget her, some kind friend will come up and whisper, "What is the matter, you have not danced this evening with Röchin." As to being tired, there is no such thing; the rule is, when you have waltzed yourself into such a fever that a drink of cold water would kill you, you must drink pure brandy and go on. I ought to pay a tribute of recollection to you, Agnes, then nineteen, tall, with jet black hair, elastic as a piece of whalebone; when you waltzed, all stopped to admire you.

All this digression belongs to the article of kissing, and if there is anything wrong in it, it is the fault of the Bishop who made me kiss that black Bible. But I have not done yet. I very much doubt if a person *can* kiss a Bible, in the sense the Baron, in his chemical work, gives to a kiss. Putting one's lips to a thing, gives no correct idea of kissing. The Baron says, (to quote his own words) "The kiss gives nothing, but rather seeks, strives after an equilibrium, which it does not attain." I am not quite satisfied with the Baron's explanation. I should think, that if the equilibrium is not attained, it is because the lips are removed too soon. There are some more particulars on the subject, which are highly interesting to any persons who may be either actively or passively engaged in the matter under discussion, but, though they read very well in a work entirely devoted to science, I do not bring them in here, lest I should incur the charge of indelicacy.

Now we will go back, if you please, to my friend the Collector, and the nature of an oath.

It so happened that one day I found myself alone with the Collector in his office, and with the usual bible before me to kiss—and it was not alone to be kissed, but there were the same solemn words said previously, to make the ceremony more impressive. It was not quite so awful as when they make you a Freemason, but still, serious enough to rap pretty loudly at the door of your conscience.

Now, while the Collector in his office impersonated his most sacred Majesty and the Bench of Bishops, of course there was a wide chasm between us; but, when the Collector no longer represented the Church and State, and was seated at my table after dinner, with a glass of old port before him (there was not a better judge in England), he was one of the liveliest and pleasantest companions in the world, taking things as easy and comfortable as Palmerston does in his after-dinner speeches.

Excuse this tribute of esteem to my poor friend G., who, with the oaths of that day, is gone to a better place than Collector of His Majesty's Customs.

However, to resume my story. One day when I went to get the order on the Treasurer, and to take the previously requisite oath, I noticed that the Collector read the formula preceding the kissing very quickly—almost as a duty that *must* be done. So I said, "How is it possible, Mr. G., that I can take an oath that all this was really the product of the British West India Islands, when

I never was there in my life, and know no more about it than the man in the moon."

"Well, but Mr. Smith," said the Collector, "*Do you know anything to the contrary?*"

"No, *most certainly I do not*," said I.

"Well then, you must take the oath *in that sense*."

"Certainly," said I, "in *that sense* I can take the oath with a clear conscience."

From that time forwards, I took the oaths as comfortably as putting on a pair of old slippers.

Cannot all the difficulties in the bible be got over in the same way, and people be christened, married, and buried, without having their consciences disturbed.

The case is a very different one. The church is assailed in every way. About a twelvemonth ago, a motion was made in the House of Lords, that, whereas the translation of the bible was manifestly erroneous, it was expedient that a scientific and correct translation should be made for public use. This was negatived by the Bishops, on the ground that it would uselessly unsettle men's minds. Of course it would unsettle men's minds to be told that the verses, from which millions of sermons had been preached, were incorrect.

Then comes "Essays and Reviews," which would have been regarded as a scientific work, and have slept quietly, until it died a natural death, if the church had left it alone.

Now comes Bishop Colenso's Work—very able as the work of a high Wrangler. The Bishop is

quite startled at finding intelligence in a Zulu. Let him converse, as I have done days and years, with high caste Brahmins, some of whom have in their libraries all the newest English Works, and he will find that high intelligence can exist as well under a black skin as under a white one. But the Bishop's Work appears to me to want principle. If the principle, of which the acquiescence is sought, be that what is physically impossible, could not have happened, why select the Pentateuch only? If, again, the principle be sought to be applied to the whole Bible, it is like a man pulling down an old house before he has a a plan of a new one, which will satisfy public opinion, the result of which would be, that he finds himself without a house at all.

The only sensible thing the church can do, at present, is to leave the dogmas alone, and, instead of building so many churches, build up clergymen. Take a hint from the army and navy, and oblige clergymen to have a highly scientific competitive education, so that the clergyman shall command respect by being a luminary of science. The sermons of such men would make the public pass over the dogmas, in admiration of the scientific and improving discourses of the Sunday.

If the clergymen of the church of England were the most scientific class of men in the nation, there would be few dissenters.

DOGMA.

How shall I approach this wonderful subject—Reader? It exists in your house, in your family, in your head; your mother implanted it there before you had the use of your reason. You may be Bhuddist, Hindoo, Turk, or Christian, it's all the same, Dogma is in you, and lives with you.

I feel inadequate to do justice to the subject, but my shortcomings may be added to by abler writers.

Dogma is the largest, the oldest, the most pervading thing in existence; it is spread over and overshadows the whole human race. It is the oldest of all things we can trace—we cannot find the time when it did not exist. In different dresses it is always the same thing, whether Bhuddist, Hindoo, Mahometan, or Christian, the Dogma in each is the same thing, only in a different phrase.

Dogma is a licence—a patent—a reason—a justification—of what?

Of charity, benevolence, love, revenge, massacre, spoliation, and torture.

The Dogma of Mahomet was his justification for killing all unbelievers; the Dogma of Moses was his licence to kill and take possession. Dogma massacred the Hugenôts of France, burnt the Protestants in Smithfield, established the Inquisition and torture, is even now prosecuting

the Authors of "Essays and Reviews," looking with vulture eye on Bishop Colenso, and sending missionaries out to all quarters of the earth, to preach charity and goodwill to men.

Emperors, Sultans, and Kings, are all servants of Dogma, and parade the titles they have from it; the one is "Eldest son of the Church," the other, "Defender of the Faith" (why does the faith want defence?), "Commander of the faithful;" and all append to their titles "by the grace of God," or by divine right.

As architect, Dogma built the temples and pyramids of Egypt and India, the temples of the Romans, the Temple of Solomon, and all subsequent cathedrals and churches; each and all have been built of the same power, under different denominations, each for and in the name of its especial Dogma.

Dogma does not disdain small operations. Is there a Joanna Southcote?—Dogma patronises her. Does Joe Smith invent a new revelation from the Divinity, and found a new religious sect?—Dogma lends a helping hand.

Dogma is a barrister, and pleads both sides of a question at the same time; the reverend Preacher in the Southern states opens the Bible, and proves slavery to be a Dogma—a divine institution; the reverend Preacher in the North opens the same book, and proves that slave-holding is an infamous crime.

Dogma is everywhere, speak low, the papers say, Lavalette, the French Ambassador at Rome, was withdrawn, because Madame Lavalette, in her

soirées, said she did not believe at all in the Roman Catholic Dogma. Were not several persons imprisoned a few days ago in Spain for reading books tending to weaken the State religious Dogma. Orange and Ribbon fights in Ireland, are they not for Dogma? And, if you have been examining the nature and qualities of Dogma after dinner, over the wine and cigars, do you not drop the subject entirely in the drawing-room? Dogma is there. In the nursery the mother teaches the child Dogma which she does not believe, but dares not confess to herself that she disbelieves.

Dogma has many friends; emperors and kings have bowed down and kissed its feet, and held the stirrup for it,—all who want to enslave mankind, to conquer, to pillage, to hold dominion over, and to enthral,—all are friends of Dogma;—they take its titles, extol its virtues, declare it heresy to doubt about it, and maintain its divine right to exterminate and suppress whatever is opposed to it; thus, the Concordat between the Emperor of Austria and the Pope, to the effect that the forty millions of Austrians should have no books printed or imported into the kingdom, except such as were inspected and permitted by the priests, was but a homage to the Roman Catholic Dogma.

What, then, is the nature of this all-pervading thing, if thing it can be called.

Surveying it from London to Rome, from Rome to Constantinople, from Constantinople to Delhi, from Delhi to Pekin, Dogma is uniform.

It is the fixed, unhesitating, unchanging belief in the superhuman, the miraculous (or that which is impossible in nature), in the improbable and (to our intelligence) the impossible; but the more impossible and improbable, the better the quality of true belief.

Well, Dogma, which has been enthroned over the whole human race for unknown thousands of years, must surely be divine; it can have no enemies. It has had none; for thousands of years it has reigned supreme, it has sat on the throne with the monarch, it has been hugged by the nobility, and defended by the army; and the only changes that have taken place have been the change of dress, as Dogma dressed up in some new shape pleased mankind more than the old dress; but the same thing, no more or less.

Latterly, however, an enemy to Dogma has sprung up in the human mind—a stern and powerful enemy, taking the Press as auxiliary. That enemy is science, and when the contest is free between science and Dogma, the victory is certain to the former.

In vain does Dogma shelter itself under its antiquity, its respectability, the absolute necessity for the welfare of society that it should be maintained. Science cannot yield; science proves itself to be truth, while Dogma rests its greatest defence on blind credulity. Science says, examine, investigate, prove. Dogma says, believe all, examine nothing. Science says, open your eyes. Dogma says, keep them shut. Science is the exaltation of human intellect. Dogma is its

negation and degradation. Science has explored the elements of the earth, measured the distances of the celestial bodies, shewed the exquisite formation of the organs of man, of the eye—that wonderful piece of optics, of the hand—that perfect piece of mechanism, and science now is asking earnestly what is the nature, and what the uses of the brain, the mind, which directs the eye and the hand? Dogma answers, the use of the mind is to believe implicitly an absurdity, and the use of the hand to work for the professors of the absurdity; and for fear your children, if left to themselves, should revolt against Dogma, we must instil it into their minds before their reasoning faculties are able to raise objections.

The highly religious part of the community, particularly females, will ask, "Is this all permitted by Divine Providence?" I reply, "Nothing whatever takes place without not only the permission but the direct agency of Divine Providence." Under that agency you have brought up your child in the strictest observance of your religious tenets, in the most regular attendance at church, and the eternal happiness consequent on implicit and unquestioning belief, and the eternal misery of doubting or disbelieving any of the tenets of your religion, are so firmly instilled into his mind, that he accepts every Dogma of it with awe and reverence. But there is also another thing permitted by Divine Providence, and that is, that your child on quitting your maternal wing should enter deeply into scientific subjects of all sorts, and should travel and see

the world, and should see that according to your strict Dogma, the greater part of mankind are condemned to everlasting misery; that he, if a Protestant, is condemned as a heretic by the Roman Catholic Dogma, and *vice versâ*, while the doctrines of two hundred millions of Mahometans condemn you both as Christian Dogs.

Further, science demonstrates to your child that certain portions of the Belief or Dogma you have taught him are entirely at variance with facts, with probalities and with possibilities.

When your child has arrived at the full development of his faculties and knowledge of the world, the battle between Dogma and Science begins. Dogma says "To doubt is sin, and sin entails punishment." Science says, Did God give you eyes and not permit you to use them? Did He give you a mind to learn all the secrets of nature, and to reflect, and to form opinions, and come to conclusions, and then reckon as sin, and punish you for making use of your mind? Reason and science forbid such an idea, and from the moment your child examines the Dogma you have brought him up in, as a scientific queston, and dismisses entirely from his mind (I should say scouts) the idea that his judging for himself can, in the remotest way, entail a punishment, the cause of Dogma is lost, and he enters into the phase of treating religion as matter of science and not of Dogma.

I have traced to you the phases in one human mind, very likely your own, from perfect belief in Dogma, to perfect unbelief in it. Let us now

consider the whole human race as one colossal man, whose scientific education is progressing, and who, as he emerges from darkness to light, rejects little by little the improbable, the impossible, and the absurd Dogmas which through thousands of years have held dominion over the human race. As, in the scheme of the earth, it is certain that vegetation and animalization commenced in the simplest forms, and with each phase of temperature these forms of vegetables and animals underwent changes culminating after untold ages, in man—so it appears that the intellect of man, between its gross and uneducated state, when it is entirely occupied with its animal faculties and desires—and its highly educated state, in which it penetrates and examines the nature and qualities of all things which come within the range of its faculties— when one educated man is not that man alone, but combines the united education of millions who have preceeded him. So, during all this progress, from utter darknes to perfect light, he, the colossal human man, has to pass through all the phases of Dogma exactly and in proportion to his education —not in proportion to the duration of time, for then the King of Dahomey would establish scientific schools instead of cutting off men's heads at his religious ceremonies, and St. Januarius's blood would never have been put in a bottle, nor should we have, at the present day, rival Dogmas condemning each other to everlasting flames, nor the French occupying Rome for a Dogma, not in the slightest degree in the proportion to the

duration of time, or else, all mankind would be equally free from Dogmas; but, in proportion to education, free thought, and a free press, added to enormously, no doubt, by those mechanical discoveries which, by making coals do the labor of man, give man leisure to think.

If you wish to behold Dogma in its greatest glory, you must go where it has reigned to the exclusion of science and education. Go to Naples, where there is nearly a revolution, if the blood of Saint Januarius does not liquify on a certain day. That is a Dogma taught by Christian priests, firmly believed by a Christian populace, and I know a man who was arrested and put in prison for saying, in a circle of friends, that the blood of St. Januarius might be bought in a chemist's shop, and 2,000 francs security had to be given and great interest made to get him allowed to be out on bail, and this only about two years ago.

Here is Christian Dogma. You are told by Christian priests that the blood of a man, who died, I don't know how many years ago, was preserved in a bottle, and that on the anniversary of his death, that blood which was congealed, putrid, or in whatever state blood might become in 50 or 150 years in a bottle, *bonâ fide* liquifies and becomes the pure human blood, just as it circulated in that man's body when he was alive; and, if you say it is all "gammon," the Government puts you in prison I am most intimate with the man who was put in prison, and with the other who gave security to get him out, and if he had not had such a powerful friend, it is

probable he would have been kept in prison till Garibaldi entered the city.

But Dogma is profitable. I was on a visit at a monastery in the interior of Spain, and very jolly, able-bodied, good-looking, plump, contented fellows the monks were; and when the heat of the day was over, we played at bowls, and the lands of the monastery extended a walking day's journey all round. Imagine fifty or sixty single men representing a Dogma, and in virtue of it possessing as much land as all London and its suburbs occupy, and all this settled on them and their successors for nothing—for a Dogma.

London Club Houses certainly have some analogy to monasteries, as ladies are not admitted; but they have no Dogma, so they are obliged to pay their own expenses.

The Convents, too, are very pretty creations of Dogma, which has a reasoning of its own,—that is to say, Dogma says, "What I say is true, and I am infallible, and all nature is wrong when opposed to me."

Now, any person who had studied Buffon's Natural History, or Bell's Anatomy, would conclude logically that fertility formed part of the design of creation, or the spirit of good, and sterility the opposite, or spirit of evil. But Dogma declares that a vow of sterility is so praiseworthy, that it should be endowed with house and hands.

Dogma, however, is very lenient, and, provided it gets the money on the theory, shuts its eyes to the practice, as long as it does not publicly interfere with its interests.

In Rome in 1861 (this I know from the French police and the French Etat-Major, and it formed part of the chat of our soirées), at a certain Convent, an extraordinary mortality took place among the Nuns, and a secret investigation took place, and the mortality was found to have had nothing to do with sterility or vows of chastity, but quite the reverse. Now this was a Convent, which served as a Boarding-school also for the daughters of very respectable families. Well, the Convent was shut up, and the young ladies sent home, under the heaviest denunciations, if they revealed any of the Convent secrets.

But the secrets told themselves, and the Mama's found that their daughters were as wise as themselves, and had taken lessons before hand, which would not be considered in the list of accomplishments by their future husbands.

I think I have clearly proved that a man's real religion depends on his education, and whether Turk, Christian, or Hindoo, by the chance of birth, he will reject the improbable and absurd dogmatic portions of his parental religion, as soon as he is convinced of their fallacy.

Should not the National Church then, by a great effort, endeavour to place itself on a level with the advancing education of man.

We now see that the slave trade, which one hundred years ago was protected by the church and state, was a barbarity; but, when we say to the Americans "Your holding slaves is a horrible crime," they retort "We had it from you."

And by and bye, Missionaries will go out from

England to inculcate a religion less incumbered with Dogma, and will meet nations in foreign countries, who will give them the same reply.

I shall finish this article by a few remarks which will not meet a general concurrence. What is a Dogma? As I explained in a former part, everything is either a cause or an effect, and no effect can take place without a material cause, I mean a material element, be it ponderable or imponderable. Even the pictures of ghosts, which the Boston Photographers are taking, could not be photographed unless the ghosts were of elemental stuff. Dogma, then, not being material, is an effect of a material element, in a word, it is the effect of the stomach of man. A horse's stomach is content with a field of clover, but man's stomach is an epitome of everything that was in Cardinal Wolsey's palace, and a box at the opera besides.

The more educated man, therefore, wanting to possess all his heart desires, sells to the ignorant or less educated man the article, Dogma, and the less educated man buys such kind of Dogma as the state of his mental education will permit him to digest. And then, if the sellers of the Dogma can get a patent from the Government, and make it a Government concern on joint account, the speculation is a splendid one, and like Joseph with the Egyptians in the famine, the Government and the proprietors of the Dogma become possessed of all the "substance" of the unfortunate people.

You say, "are people then to have no reli-

gion ?" I reply, "I think the more educated a man is, the more religion he has; and the belief in the liquification of Saint Januarius's blood, or any other absurdity, is no more religion than night is day."

BELIEF.

The idea of writing this article arises from the following cirumstance:—My old, esteemed, and valued friend W.——, a few days ago, made it a personal matter of reproach to me, that I did not believe all the things or occurrences he stated to me to have personally witnessed at a séance, where there were some persons called mediums, and other parties of distinction and education present.

Now I have known W. intimately for many years (with a long interval while I was abroad); and, certainly, if there is a truthful man in existence, he is one;—one of those men who, in former days, would have gloried in martyrdom rather than allow that he gave up an iota of belief;—a man whose convictions are so strong, that he not only firmly believes a thing himself, but insists that everybody else ought to believe it too. He pressed me so, on the ground that not to believe him was a personal affront, that if I had not possessed a very amiable, patient temper, I should have been affronted; indeed, for the moment, I was rather put out, until I had collected my reasoning faculties, and then I told him that he had no right to insist on my believing; that belief was a matter of conviction and not of force; and thus commenced the train of thoughts to which the question, "What is belief?" gave rise.

Before proceeding on that question, some of the preceding occurrences will interest or amuse you. Before I left England, W. was always what might be termed a very materialistic character, such as might be expressed in the words, "I believe what I see, and I am not to be gammoned by any nonsense."

When W. heard from a mutual friend of my return, he wrote me a letter, and after the usual congratulations, went at once at great length into the subject of his having become a convert to spiritualism, requesting me to go and see some very good honest mediums in London. I replied, that I thought the best thing he could do was to go to some highly respectable lunatic asylum and state his belief, which would entitle him to immediate admission: and as for the mediums, as he was coming up to London to the Exhibition, that would be time enough for me to go with him.

So he came up to London, and I found my old friend as deeply dyed in spiritualism as ever a piece of cotton which the linendraper tickets "fast colours warranted to wash well." Whatever subject was talked of seemed secondary to him; and at the very first chance, up came spiritualism like a cork, which you have momentarily forced under water. In short, there was no peace till I went with him to see these two female mediums.

All our hands were put on the table; the table moved and jumped, quantities of raps were heard, and the elderly medium declared that a number of spirits were present. I asked her how long she had been a medium; she said it was a gift

from her childhood. The real business then began by the table turning towards me several times, and the medium asked vocally if the spirit wished to speak to me, which the spirit answered by three raps. This spirit said his name was William; and as the mediums knew my name, and I confessed to an uncle who died forty years ago, the spirit declared himself my uncle, which he spelt with the spirit alphabet "unkel," besides spelling my surname rather phonetically. I said, I wondered my uncle had forgotten his spelling, but was told that the spirits did not always spell correctly. To go on, my "unkel" told me, by the spirit alphabet, to "fear God and lead a holy life." Another spirit announced himself as my brother, who is abroad, and who was educated at Oxford, who also spelt his own name wrong. As when last I heard of him he was alive, I began to be uneasy, when told he had "passed away," as the spirits call it; however, as the spirits at different times said he had passed away eight weeks ago and eight years ago, I became more easy. A lady present was told by a spirit, "you shall have power to believe yourself, and convince your husband."

During the séance, at one time, I sat away from the table, looking on, when a spirit (by the alphabet) said, "Come to the table?" The séance ended by one of the spirits saying, "We are off, good-bye;" and then retreating raps were heard.

On our return home, I summed up the séance to my friend W., as follows:—"You took

me to see a table move, and to hear certain raps, which, through the alphabet, spell certain words, and you asserted that there was a communication of intelligence in those raps, not emanating from the media, but from unseen spirits. I did not see how the table was moved, as we were all round it, nor do I know how the raps were produced; but as to any communication bearing the slightest analogy to your representations, that has not taken place; the communications made were just such as any illiterate woman might make; there is no harm, certainly, in being told to 'fear God and lead a holy life;' but that recommendation does not carry any convincing proof that my uncle's spirit made it, and I certainly would not spend another half-crown on such nonsense."

W. admitted that the seance was a failure; but apologised for the spirits, that they acted at times more reasonably.

Some days after, W. and I, and B., were at the Exhibition, and the "ruling spirit," like a cork, came uppermost, and he asked if I had any objection to have the media at my house. "None in the world," said I; "but I have a great objection to pay them half-a-guinea for coming, besides their cab hire."

"I'll pay that," said he; I want to sift the subject to the bottom," and away he went; and at seven o'clock the two media came.

The three-footed round table I am now writing on certainly moved; and the light sofa close to it, close to which the younger medium was sitting, also moved from the wall; and W. pushed it back

three times, saying, "Well done, good spirit," and it moved out again; and there were a variety of raps, which the elder medium said denoted a quantity of spirits in the room; and wonderful were the stories the elder medium related of furniture moving about the rooms entirely by itself; upon which, B. very politely requested, and made the media sit away from the table and sofa, to see if the spirits would so far favour us as to move the tables by themselves; but no such thing, nothing would move except what the medium's hands were upon, or her feet could get at, and no communication whatever was made; in vain did the elder medium and W. adjure the spirits, in the most earnest manner, to say something. By half-past ten, we were at a dead stand-still; still W., feeling that his cause was lost, persisted in sitting at the table and adjuring the spirits; at last, the elder medium said to the spirits, "Will you say any more to us?" three assenting raps followed. We were going to be gratified—the alphabet produced—and the spirit said the important words, "We are off!" followed by the diminishing rapping, indicating going away. The media put their hands off the table on their laps, and said it was all over. W. paid them, at least, half-a-guinea and their cab hire.

I may also mention, that when the media arrived, and were asked as usual to walk up stairs, they would not allow any one to follow behind them; and as it is rather indecorous for the lady of a house to walk up and let her guests follow her, it gave rise to some polite pressing,

which was of no avail; they would not put any one in a position to see their shoes; so that whether the rapping machinery was there, is uncertain; but B. once tapped the leg of the table so exactly with his boot, that the elder medium said it was a spirit.

When they were gone, I summed up as before. We have seen tables, and chairs, and a sofa move; but they did not move unless the hands of the media were on them, or their feet could get at them. Further, we see this time that we can imitate the movement of the table ourselves, keeping the thumb and fingers of the hand on the table, by the pressure of the muscles of the hand behind the thumb. Spiritual communications we had none—whether because "fear God and lead a holy life" had been told us in the previous séance, or that the spirits, or the media representing them, had nothing else to say, is doubtful.

W. got very angry, said if I would help him to investigate and discover the fraud, he would be glad to send them to the tread-mill. I replied, that if they ought to be sent to the tread-mill, and I was the magistrate with full powers on the occasion, I should send him to the tread-mill too, for not having made proper use of his reasoning powers.

It was after this, and before his departure from London, that he so pointedly insisted that I ought, out of regard for his veracity, to believe the other "spiritual events," which he declared he witnessed, and this gave rise to the question—

What is Belief?

Belief is of all sorts, and shades, and quantities, dependent on a thousand circumstances. General belief we use every hour in the day. When we read the newspapers, we admit the evidence at once, as we do also in most of the minor affairs of life. Sometimes the newspapers give—say a Federal telegram—of a "great victory;" but as those telegrams have sometimes given a wrong version, the paper adds—"this requires confirmation," and we suspend our belief. But it is when something weighty, affecting our happiness or well-being, is presented to us, that the question of belief becomes more intricate. Perhaps we believe because Dr. Johnson tells us it is so. Then it is not really we who believe, but Dr. Johnson who believes, and we are only looking-glasses who reflect the image Dr. Johnson holds up before us. And if Dr. Jameson next day holds up a stronger image before our minds, our belief in Dr. Johnson fades away, and we reflect Dr. Jameson's belief. Or, perhaps, Dr. Johnson changes his opinion, and then we poor Looking-Glasses are very indignant with him, and feel ourselves at sea without a compass.

Earnest belief, therefore, is an arduous action of the mind, depending on the education the mind has received to fit it for the task; weighing carefully the evidences adduced, and allowing the weight of evidence to constitute the belief.

Twelve men are on a jury. A fellow-man's

life depends on their belief whether he committed a certain crime or not; while, on the other hand, the safety of the lives and property of society depends upon the crime, if committed by him, not remaining unpunished. The evidence may be, and often is, so nicely balanced, that half the jury think he is guilty, and the other half do not; and yet every man of the jury is perfectly sincere; and the evidence and the summing up have been the same to all. If the mechanism of their minds were all exactly the same, of course the verdict would be unanimous. But as that is not the case, it is evident that each human mind has, as one may say, a pair of scales of its own, and that the evidence which is very weighty to one mind may be very light in the scales of another. And it proves also, that whatever may be the weight of evidence establishing a belief to-day, other evidence to-morrow may cause the scale to turn the other way.

Belief is not certainty, even although a person may say, "I have not the slightest doubt on the subject." That expression only means, "The evidence is so strong that I admit the fact." But it does not amount to *bonâ fide* positive certainty.

The gradations are these—

A. broke a pane of glass—he does not believe anything about it, he is *certain* that he broke it.

A. shows B. the pane of glass, and tells him that he broke it. B. believes A., and has not a doubt on the subject. Still, as he did not see A. break it, there is a doubt; or rather, though B. believes A., and has not a doubt that A. broke

the glass, there is a possibility that A. may have told a falsehood.

The action of the mind, if influenced only by the facts presented to it, is easy, and may be termed agreeable; but it becomes disagreeable when extraneous authority is pressed into the service to induce and compel a belief repugnant to reason, and contrary to the known laws of nature.

I have no objection to tables and chairs moving about by themselves; nor that my respected grandfather and mother, uncles and aunts should pay me a visit and have as much chat as they please; but they were all very economical people, and if they wanted to make any communication to me, I am sure they would come to my house, and not oblige me to pay 2s. 6d. to two uneducated women in Bloomsbury to act as media or brokers. And when my friend W. puts the weight of his truthfulness in the scale, and insists that he feels affronted because I do not believe things ten times more strange, I say he is wrong, and that he ought to carry a moving and talking table always about with him, as organ-boys carry monkeys—otherwise it is the positive duty of every person, in the interests of society at large, to disbelieve every portion of such statements as are not capable of proof anywhere and everywhere. Because, when once the mind is induced to open its doors and admit one absurdity, the door remains open to a hundred others. Respectable people say they have seen spirits. "Were they 'in nubibus?'" said I. "Oh, no; dressed as usual." Then

bonnets, and shawls, and dresses, and under-linen all die when the owner dies, and their spirits serve to dress the owner's spirit up. Nonsense, is it? The worst of such nonsense is, that numbers of very respectable, well-educated people believe it; and numbers of others, influenced by their respectability, are frightened and know not what to believe.

There are three operations of the Mind—Knowing—Believing—Thinking.

Knowing is the operation direct on the senses. Believing is admitting a fact on the weight of evidence. Thinking is admitting a fact where there is not sufficient evidence for believing.

For instance : I know the table moved, for I saw it move. W. believes the table was moved by spirits, because the media told him so, and he admits that evidence. I do not believe that the table was moved by spirits, although I cannot tell how it was moved. W. does not think about the matter, because, as he believes, the operation of thinking does not take place. I think the media moved the tables themselves; and I think so, because I do not believe in spirits at all, and am not aware of any invisible electric force in nature that could move a table.

But, if, after such experiments as proved that no mechanism whatever was present—I saw a table move—I should then think that there existed some law of electricity in nature, somewhat similar to that which moves the compass, which, applied in a particular manner, caused the table to move. But I should not think that the spirit

of a dead person moved the table, much less should I believe such a thing; and the quantity of evidence I should require before I believed such a thing, would be about as much as to make me believe that two and two are a thousand, or that an ounce in one scale would weigh as much as a pound in the other.

You visited the mansion and the room where Count —— murdered his wife seventy years ago, and was condemned and executed for it. The house has been haunted since. You heard a plaintive wail. The housekeeper (who has shown the house since) says it is supposed to be the spirit of the murdered countess; of course you were convinced, and gave her half-a-crown. It was an Œolian harp.

To know, to believe, to think; what we know depends on education, observation, and experience; what we believe, depends on our reasoning powers admitting true or false evidence; what we think, is the combined result of what we know and what we believe; and, therefore, if we know but little on a subject, and believe a great deal, our thoughts are liable to lead to false conclusions.

From the hour we can comprehend language to the hour our life ceases, we are told, or asked, or wish, to believe; childhood believes everything, age but little.

Everybody that has anything to part with, asks us to believe that it is better than anything else. I read a lady's letter, that her daughter was "an angel, and her only comfort in life," and this to a gentleman, whose position in life rendered

him suitable to be the robber of "her only comfort." She will part with that "only comfort" as fast as possible, because she has two other little girls who will become "only comforts" as soon as they are fit to be parted with. But it is too bad to digress on such a serious subject.

On the justice of our conclusions, hangs happiness or misery—often life or death. The errors seem to spring from thinking—that is, forming a conclusion before we have exhausted the evidence we can have; that is, first, our positive knowledge on the subject; and, secondly, our belief according to the evidence we admit. If we come to a conclusion on a subject before going through this process carefully, it is like hanging a man first and trying him afterwards.

March 20, 1863.

The foregoing was written five months ago, and to get at once into the middle of the very singular events which have happened to me since, I copy part of a letter.

" *Monday, March* 16.

" My dear Mary,—Thank God, as the people say, I have done reading about spirits.

" I have read the following works:—

"The reality of Spirits, and their direct writing, by Baron Guldenstubbe	pages	216
The Book of Spirits, by Allan Kardic ...	„	474
The Book of Mediums, by Allan Kardic ...	„	506
Incidents in my Life, by D. D. Home ...	„	288
Spiritualism in America, by B. Coleman ...	„	87
Spirit Magazines	„	300
Researches into the Vital force, by Baron Reschentach	„	463
Heaven and Hell, by Swedenborg	„	560
	Pages	2894

which I think is pretty well—and I have seen as much, or more, about it at home, as all the books put together contain.

" I have seen a table move, totally alone; and a chair move, totally alone; move, just as you see a leaf carried along by the wind on a turnpike road, and I have reasonable conversations with Mary Jane whenever I please;——but, I have neither seen nor heard any thing to convince me, in the slightest degree, that Mary Jane is the spirit of a deceased person. It is only a hitherto unexplained phenomenon of nature, which, until chemists and scientific men analyse, will be made use of to get money from the many."

Before going on with my very singular narrative, I beg to be allowed to address myself to somebody as an ideal chairman;

and, I therefore speak exclusively to chemists, medical men, and scientific men; I do not address myself to the ladies, I know their feelings,—it is, "We appear to speak with our departed relatives; we do not comprehend it; we should be glad if scientific men would explain the phenomena to us."

I shall now proceed to give a very condensed account of what has happened to me in the last four months, and which induced me to peruse the 2,894 pages before-mentioned, and which, most assuredly, I never should have done, had not events thoroughly convinced me that the narratives in those books are perfectly true, and that the parties have seen all they state they have seen; only, I must be allowed to remark, that to our eyes, the sun goes round the earth, but it is not so in reality.

I will trouble you to look back to the remark, "a lady present was told by a spirit, you shall have power to believe yourself and convince your husband."

Now, this lady was my wife, and if there was one thing more than another which made me utterly discredit the so-called spirit manifestations, it was this communication; first, because she herself believed the whole thing "got up," and that there was some machinery, perhaps in the heels, which produced the raps; and secondly, because you will have noticed my remark, that if I saw a table move without any mechanical force, I should conclude it to be caused by some unknown electrical law; and certainly, although in domestic matters, my wife finds very convincing arguments, and in cases of ordinary illness has a host of remedies at her fingers' ends; still, in all matters of chemistry, electricity, or mechanics, she does not pretend to have any formed opinions, and accepts implicitly my explanations. It was singular, however, that the Medium's prophecy was to be fulfilled, not only to the letter, but tenfold corroborated.

Before I go on, allow me to give you a kind of sketch of the manner in which I am going to treat this subject. First, I shall relate to you simply what happened, commenting upon it only as far as necessary, to show you the governing ideas I had; next, I shall explain my views of the extent, through nature, of this power; and

either, then, or as may appear to me needful, give you extracts from the works I have read on the subject.

To my narrative. My friend W. came again on a visit, just after the Exhibition was closed, and proposed one evening a general sitting down to table-turning; and some young ladies being home from school, and visitors present also, the round table was fully occupied. I did not sit down, as it appeared to me perfectly useless—as it had already been demonstrated that a table turns, and scientific men said that the very sitting down with intent would cause such an action as to commence a movement; and other scientific men said that by sitting at the table, a kind of nervous action was brought on, by which the table was moved, although the party was totally unconscious of giving it any impulse.

Well, the table turned, and one accused the other of pushing it, and the evening ended as most table-turning evenings do—in nothing being elicited except that the table turned.

The next day, when I returned from the City, my wife told me that the table turned for her.

"Indeed," said I; "how came that about?"

"Well," said she, "yesterday evening, Mrs. ——— declared solemnly and positively that the table moved for her, declaring she was not in joke, so I thought that if it moved for her I did not see why it should not move for me, so I determined to give it a fair trial all alone, and I took the small japanned table and determined to sit steady at it for half-an-hour, and if by that time it did not move, to give it up altogether. Well, in about twenty minutes I felt the table distinctly move, and I got frightened and got up. Recovering myself, however, I again sat down to it, and then it moved in five minutes, and now it moves quite easily in two or three minutes after I put my hands on."

I cannot say that I was convinced. However, after tea, I sat down with her to the same table, and certainly the table moved about in a very unaccountable way. It was not to any particular point in the compass—now here, now there, getting into a corner of the room, and then, when I thought it must stop there, backing

out and going somewhere else. I then said, "Let us try the large rosewood table," and, to our surprise, it moved nearly as easily as the small one. For some evenings the same phenomena occurred, and I asked a friend or two to see it. They thought it very strange, but still they showed how very slight a pressure will move a table, particularly when the finger ends become damp. In a word, my friends said, "It appears to be, but it cannot be."

A great point I wanted to establish to my justly-sceptical friends, was, that the table really moved without any lateral pressure whatever; and the nearest approach I made to that was with a small round slate Chess table, on which I laid a napkin or muslin handkerchief. Now, the slightest attempt to move a table—putting the hands on the handkerchief—is detected by the handkerchief wrinkling up; so I got my friends to try whether *they* could move the table without its being apparent that they used lateral pressure. They could not; and, yet, when my wife put her hands on the handkerchief, the table moved without causing the least wrinkle of it. At all events, here was primary proof of a power; and the question was, what sort of a power? For the movements were in no particular direction; at times, half round and back again; towards me; towards my wife; to any corner of the room; the movements not steady. I could generally feel when the table was going to move by a kind of trembling of it; and then it would move one foot or two feet, and then stop; just as though, by that motion, it had parted with a quantity of electric matter, and required time to be again charged; at times, also, it would tilt: in short, what it would do was quite matter of curiosity and uncertainty.

So matters went on. The fact of the table moving on the one hand, and the absurdity of it on the other. A table—wood—the human hand—what relation can they have? The first ray of light I got on the subject, was walking through Russell Square, to visit a friend, and puzzling my head with the table—wood—when the words *sensitive plant* flashed across my mind.

"True," said I; "a sensitive plant is wood." Now, I had often amused myself in my garden, in the East Indies, where the

sensitive plants grow to the size of bushes, in holding a finger to the top leaf of a branch, and observing all the leaves of that branch droop one by one.

Well, thought I, something comes out of the human hand that affects that plant; if nothing came out, the plant would not be affected.

What is that something?

I had seen cases of amputation by Dr. Esdaile in the Government Mesmeric Hospital, at Calcutta, and was convinced of the fact that something came out of one human body, through the hand, which put another human body to sleep; during which sleep it was insensible to pain. But, until the sensitive plant occurred to me, I could not realise that that something should affect anything else but a human body.

However, it appears very clear that something comes out of the human hand, and that something affects a piece of living wood, as the sensitive plant; and of dead wood, as a table. But it not only affected a wooden table, but caused a similar motion in a slate table.

The next question was: Where did the motion originate? My wife said she felt it come from the feet of the table; that they seemed to drag and commence the motion; was the motion, then, commenced by the effort to get rid of the power given by the feet? I got a large piece of glass, and laying it on the table, she put her hands on it; but the glass moved immediately, semi-circularly, off the table. I then got a four feet circular sheet of zinc, which covered all the table, but when she put her hands on it, the zinc moved semi-circularly off the table, till it hung down; the table did not move. I got a wooden top made, placed it on the table—that moved off similarly, without the table moving. It was clear, therefore, that the power was a surface power, and not a power which acted by charging the whole table.

At times the table became very violent indeed, tilting and striking with one leg so violently that we desisted, if it was late, not to disturb the house.

It was clear that something issued from the hands which was a moving power, and the question arose whether it issued equally

from the feet—to test which, I had a flat deal framework made two feet square and three inches thick, and supported on small castors. When my wife stood on it, there was evidently an endeavour to rise, when any inequality of the bearing permitted it; but when she sat down, and placed her feet on it, it began turning violently, so as to twist her ancles, and finally launched itself violently to four or five feet distance from her. The power, therefore, emanates from the feet as well as from the hands.

I noticed that the more the room was inhabited during the day, the stronger the power was in the evening; a workwoman sewing all day made a difference, and the presence of five or six people for two or three hours in the evening increased the power very much; on the contrary, if the room had been totally uninhabited all the day, the power was less, and longer in production.

Now arose another question: Did this power pervade the whole room, or was it confined to the furniture only? To test that, I took the four feet zinc plate, and had a deal framework made under it, so that it could be hereafter converted into a table (on which, in fact, I am now writing), and, by means of a new sash line, which led to a pulley, suspended it, face downwards, by the lamp hook in the middle of the ceiling, directly over the table. We had not very long to wait, for, in the course of the evening, the zinc disc was seized with a most violent rocking. As we sat directly under it, my wife was alarmed, but I assured her that she need be under no apprehension, as it was a new patent sash line, strong enough to hang any one by.

Two evenings after that, we had supped as usual, and, before going to bed, I had occasion to go into my study, adjoining the sitting-room, leaving my wife seated at the table, under the zinc plate.

All at once, I heard a most fearful shriek; and, hurrying back, found the room in darkness, and my wife fainting, and the zinc plate lying on the top of the supper table. I lifted the plate off—nothing was broken, though the table was covered with decanters, glasses, &c.; the lamp was upset, but not broken. My wife said that, while sitting waiting for me, she looked up at the zinc plate, and saw it all luminous, and saw it descend gradually to the table, when she shrieked.

I wanted to replace the zinc plate, with a stronger cord, next day, but she said she would never enter the room again if I did.

However, here was clear proof that the motive power pervaded the whole of the room, and this serves as corroboration of the statements that Mr. Home is carried up to the ceiling, and writes his name there, while so borne up.

Now came the question: What is this power which issues from the human body; which—

1. Puts to sleep, or paralyses, the sensitive plant?
2. Causes mesmeric sleep in man?
3. Gives motive-power to inert substances?

It is evident that nothing material can pass out of a man, that is not previously imbibed by him; and it is also clear that there is a quantitative stock in a man of all the elements he is composed of, and which is in a continuous state of addition by absorption, and of elimination by the excretions of every sort.

We have, therefore, only to refer to the South Kensington Museum to find that a man is composed of oxygen, hydrogen, carbon, nitrogen, phosphorus, calcium and sodium, to the extent of 153 lbs. out of his total weight of 154 lbs., the remaining pound being sulphur, fluorine, chlorine, iron, potassium, magnesium, and silicon.

Now, in the investigation of this subject, I have adhered (science must determine whether correctly or not) to the proposition laid down in page 79, when I no more believed that a motive-power could be so given to a table, than I believe that Joshua stopped the sun—namely, that "the universe is composed of substances or elements, possessing properties or qualities, and that from these properties or qualities all the effects we witness arise."

Adhering to this proposition, the case may be stated thus: Certain elements, having undergone a chemical animalisation in the human body, possess the quality of giving the effect of *motion* to inert substances, under certain conditions.

Now, the quantity of power so evolved (although, from circumstances hereafter explained, it seldom shows itself) is very great; for, if you consider the case of a negro running away—running

fifty miles—and that blood-hounds are set on his track, we see that the elements issuing from his feet attach themselves so firmly to the spots he has trod on, that for hours the hounds find his spur; and that in fifty miles, at a yard a step, he will have made 88,000 steps, and, if his foot covered six inches square, he will have impregnated 44,000 square feet with the emanations from his feet alone, being about forty-four rooms of twenty feet square each.

Now it is evident that, if that man had remained in one room all the day, although the emanations would not have been so excessive as during his flight, still they would have filled and permeated that room with these elements.

There is another corollary to be drawn, which is, that as all animals are composed of the same elements as man, only in varying quantities, so the exudations from all probably have analagous effects.

Nay, it may be even inferred that plants in their exudations have peculiar qualities which we yet want the key of.

The most remarkable thing perhaps in this phenomenon is the intensity it acquires by the individual being conscious of his or her power. Here is the case of a lady, who looking on the whole in the light of a conjuring trick, sits down to try a very light table for half an hour, and succeeds in getting it to just move in twenty minutes; and, within three days, from a consciousness of her power, causes the heaviest table to move,—not only the table, but I got on it, and it still moved.

That she had the same power always is indubitable. The case appears to be that, as she was not conscious of it, it was not sufficiently concentrated to produce the effects. The will and wish that the table should move, and the concentration of ideas to that effect, had certainly the greatest influence in promoting the flow of power-possessing element, as we shall see hereafter.

Matters were in this state when, one day, a lady called who had given much attention to spiritualism; and, on our relating our experiments to her, she said, "*Mrs. —— is an undeveloped medium.*" Singular term; however, we were not destined to remain long in suspense as to her meaning. She sat down to the

table with my wife. The table began moving as usual. She struck the table three smart raps with her knuckles, and said, "Come, good spirits, rap." The good spirits or the table immediately rapped in response. She then began talking to the table in the manner formularised in the spiritual books, and the table answered. She then made an alphabet, and began making the table talk. I was present, and must say that the poor table exhibited great want of grammatical education, for it put a dozen of incomprehensible consonants together, worse than a Welsh or Polish name, at last ending with baby.

However, this was a new and great phase, for we were beginning to get tired of a table which only moved about in a most irrational manner; so, I made myself acquainted with spirit language, which consists in conventional rapping; that is, one rap means No; two raps, Doubtful; three raps, Yes; five raps is asking for the alphabet; when, in reading over the letters, the spirit or the table will rap three times at each letter it wishes written down, and so communicate its ideas.

I found myself now in presence of intellect; in fact, of an intellectual being; for, as I was satisfied that the phenomenon depended on the emission of certain elements, and that phenomenon ceases the instant the hands were withdrawn from the table, it was clear that the intellect was a quality or property of those elements—or, perhaps more correctly, of that combination of elements.

This matter had to be investigated chemically, and this new Being had to be christened; for, as I did not wish to make a single false step, even in nomenclature; and as I had no proof whatever of its being a spirit in the sense usually attributed to that word—that is, the soul of a departed person—and, as I had already one clear cause for the movements of the table, in the same emanations from the human body which produce mesmeric sleep and the (probable) sleep of the sensitive plant, I did not choose to embarrass myself with two causes, even by the adoption of a name, until intimate scientific conviction should oblige me to. Still, an intelligent being, to be talked to, must have a name, and the house was full of children from school, and country servants. How it

was I don't know—having no relative, nor knowing any lady of that name—but I christened the new comer "Mary Jane,"-and it answered to Mary Jane, and from that time forward Mary Jane has been with us at any time we chose to talk with her, and has even repeatedly called for the alphabet, and given us a very sensible opinion on the subject we were discussing, when we did not think of appealing to her. You may be sure that, on finding a third party so unexpectedly domiciled with us, we asked it every possible question, and we received replies, the sense and accuracy of which pleased and startled us, as clearly proving a distinct and partially superhuman intelligence.

Here I beg scientific men to note a further remarkable circumstance; namely, that from the time the intellectual phenomena took place, the table ceased moving. The chemical emanations which took place, instead of causing the table to run about like a wild animal, took entirely the shape and quality of intellectuality. When we sat down to the table for five minutes, and I said "Mary Jane, are you there?" three responsive raps answered me, and the conversation began, to the evident delight of Mary Jane, who often objected to our going to bed, even at two o'clock in the morning.

But now a further progressive phase took place; it was not necessary to sit at the table; if my wife lay on the sofa, the responsive raps would come apparently from behind the sofa; and even in bed, the conversation was carried on by Mary Jane, either by raps over our heads, or apparently on a chest of drawers close by the bed. One night, after we were in bed, I was talking with Mary Jane, and I perceived that my wife was getting sleepy, and it entered my mind to test whether the emanations continued during sleep, so I continued the conversation. By degrees, the responses became slower and fainter, and by the time I was convinced that my wife was fast asleep, they ceased altogether.

Matters were in this state, when we changed our residence, and some very highly talented lady friends having taken a great interest in these phenomena, and being also mediums, though not of the power of my wife, we agreed to hold regular séances, excluding all other visitors.

We agreed perfectly that each person should treat the phenomenon as he or she believed; and, consequently, we adhered to talking familiarly with Mary Jane. They addressed it as "Dear Spirit," or "Good Spirit," and it appeared that the responses they got satisfied them that they were talking with the spirits of departed relatives. We did not know what questions they asked, for they said "Dear Spirit, will you answer me a mental question?" "Yes," the reply was given. "Yes," or "No." To the remark "Are you quite sure?" three very slow and distinct raps were the confirmation.

About this time another phenomenon took place. At the house of a lady friend, a pencil and paper had been put under the table, and a so-called spirit writing had been produced. I bought a porcelain slate, wishing to see whether our Mary Jane would write or draw under the table; so the next evening I said to my wife, "We will put the slate and pencil under the table, but previously lay the slate on the table, and hold the pencil in your hand for a little time, so as to mesmerise it." She did so, and immediately exclaimed "My hand is being moved." "Let it move," said I. The left hand covered the end of the pencil, the hand moved rapidly, and then three raps were heard, and the hand stopped. She handed me the slate, and a sentence was written on it. Since that time, she has continually written; or rather Mary Jane has guided her hand, she covering her hand with her black silk apron, writing rapidly any opinion Mary Jane chose to give, but utterly unconscious of a letter she had written.

I must not omit the musical talent of Mary Jane. At a séance (out) my wife had held a guitar in her hand under the table, and it had been played on by the good spirits of that domicile, so I could not do less than procure any and every instrument Mary Jane might like to play on; and I purchased an excellent guitar, an accordion, and a child's drum, and borrowed a violin; none answered well except the guitar; the accordion and drum were sounded a little; as for the violin, after Mary Jane had sounded a few discordant notes on it, she undid all the pegs, loosened the strings, broke down the bridge, and wrenched it out of my wife's hand.

It looks very easy to play the guitar, so my wife determined to take lessons, which gave rise to a curious *quid pro quo*. A relative of Mr. W., who performed on the violin, mentioned Mr. W.'s name, to that relative I mentioned the phenomenon, that if a medium held a guitar, and another played a violin, the so-called spirit would accompany on the guitar—and the said relative promised to bring his violin some evening to try. I mentioned the circumstance to my wife, that she might not be surprised if a stranger called, but I did not say a word on spiritualism to the staid guitar master. Now, it is much easier to see a guitar played than to play it one's self; and in the first lessons, the strings hurt the fingers, and the notes are very puzzling. My wife, who was in the habit of having her hand guided by Mary Jane, got out of patience, and thinking it was to Mr. W. that I had mentioned about the guitar being played, exclaimed, "Oh dear, I wish Mary Jane would teach me to play."

"Who, Ma'am?" said the guitar master.

"Why, Mary Jane," said she.

"And pray, Ma'am, who is Mary Jane?" said the bewildered master.

"I don't know," said my wife. "Mr. S. says it is Mary Jane, but I do not know what it is."

I believe that Mr. W. thought his pupil rather more than eccentric. However, as Mr. W. played the violin, I engaged him to come one evening, and we had a grand concert. My wife held the guitar, resting on the floor under the table, Mr. W. played the merriest waltzes, and Mary Jane accompanied them on the guitar, the faster the better. I tested, then, a circumstance which has reasonably thrown so much doubt on spiritualism; namely, that the "spirits" will not do any thing while they are looked at, and you have seen that in the séance in Bloomsbury the "spirits" said, "Come to the table."

My reflections led me to surmise that there issues from the human eye a stream of animal magnetism of much greater power than we have the means of taking measure of, and that probably this stream of magnetism paralysed the action of the stream from the hands. Now, I happened to sit so at the round table that by

bending my body slightly to the left, I could see the guitar; whereas, while sitting upright, I could not. Imagine now the fastest waltz being played on the violin, and accompanied by the guitar; when I bent my body quietly round till I saw the strings, the guitar ceased playing instantly. I recovered my upright position; the guitar resumed the accompaniment. I repeated this several times.

In the midst of this concert, my wife holding the guitar, which rested on the floor, in her right hand, she removed her left, which had been resting on the large table, on to a small light circular deal table with castors, and which I had had covered with zinc; immediately this light table began literally to dance and keep time to the music, footing it with one of its three legs, and altogether presenting a most ludicrous scene.

The poor music-master was fairly confused; he had before asked my wife, when I was out of the room; "What is Mary Jane, Ma'am; is it machinery you have got under the table?" My wife replied, "You may look under the table; I don't know what it is; Mr. S. says it is Mary Jane."

What is in a name? It answered, as instantly, always to "Mary Jane," as a new servant would, if you told her that, for family reasons, she must answer to the name of Susan. "Good Spirit" would have alarmed children and servants; "Mary Jane" alarmed nobody.

Before getting on to our séances, I must relate to you the circumstances under which I saw the greatest physical manifestations which came under my notice, never having seen Mr. Home carried up to the ceiling and round the room; which, however, I have not the slightest doubt of.

It was an uncomfortable family day. One servant going away, who, if she was sent out, stayed twice as long as needful, and it was not worth while to find fault with her. A new servant come, with whom it would have been unreasonable to find fault; the dinner behind time; and a valued medical friend, who only stayed to dine, as he was told it would be ready at five, and he

had patients very ill waiting for him; the cook out of temper — I have my reasons for mentioning these things—W. was come for two days. After dinner, a lady friend looked in; we sat to the table; Mary Jane gave ill-defined answers; the lady went home, leaving my wife and W. W. seemed discontented; I was put out at some little occurrences. Now, I should state, that as I had taken the former circular zinc plate and made a table of it, and as my wife liked to show the experiment of the zinc plate sliding off the table, she had requested me, and I had ordered a four-foot zinc plate, which had come in at about six o'clock; and as W. was going home early next morning, he begged that a trial of it might be made.

Accordingly, we put it on the table, and sat down to it. It appeared immediately as though all the smothered discontents of the day were transferred to the table, which began tilting and stamping with such violence as to frighten my wife. W. was in his glory, and wanted the table to go up to the ceiling; my wife was frightened, and took off all but her little finger; still the table was outrageous. I wanted to explain to them the phenomenon philosophically, and said, "Mary Jane, if you won't be quiet and reasonable, we shall take our hands off." The violent movements continued, and I said, "Let us take all our hands off, while I explain." We sat each of us at about a foot from the table, no one touching it; on a sudden the table moved of itself, right up to my wife; and a chair, which was standing alone, three feet from her, moved two feet towards her, just as a leaf moves on a turnpike road by the wind. The soirée ended, and W. took his departure.

Before I get to our regular séances, I must relate three or four (of many) occurrences, which, from the difficulty persons will have of believing them, I would not print, if similar phenomena were not related in the publications of Mr. Coleman and Mr. Home. As I considered that a feeble degree of light, if not total darkness, was as essential to the production of some of the phenomena as it is in photographing—I got some cotton lining and strong elastic, and made a kind of petticoat to the table reaching nearly to the floor. When this was put on, it was pulled off downwards

over the border rim of the table twenty times ; and to the question "Mary Jane, did you pull it off?" the answer "yes" was given. Next day, the piece of elastic was missing—could not be found; I bought another; we hunted for the elastic everywhere; my wife took an umbrella and felt over the tops of the picture-frames. That or the next evening, Mary Jane said, "Look in the umbrella,"—and—tucked in closely and neatly in the top of the umbrella, was the elastic—the missing elastic. Another elastic was missing; Mary Jane said, "Look behind you;" and, stuffed in the bottom of the arm-chair, that was found. By-and-bye, all the elastics (three) were missing, and I took a cord to fasten on the petticoat. On asking Mary Jane, "Have you hidden the elastics?" "Yes." Are they in this (drawing) room?" "No." "Are they in the back drawing-room?" "No." "Are they down stairs?" "Perhaps." And we found them all in a bundle on the book-case in the parlour down stairs.

Another circumstance proving (if no trick), the power of this phenomenon. I had often, in considering the action of the emanations on the sensitive plant, *wood*, and the table, wood, considered: What is wood in its widest sense? All vegetable productions when burnt, give analogous elements to wood. Coal is Wood, Cotton is Wood, Paper is Wood, Gum is the juice of Wood, Brandy the same. I wanted to try an India-rubber covering on the table. I asked Mary Jane if she would like it. "No." However, I went and bought a piece of India-rubber cloth, and my wife and I laid it on the table in the drawing-room, and went to dinner in the parlour. When we came up to tea, it had disappeared. Now you would think that a roll of India-rubber cloth, 4½ feet square, could not be easily hidden; we could not find it at all. Mary Jane said she did not like it, and had hidden it, and would not tell where it was. Four or five days after, it was found neatly rolled up and hidden behind my wife's guitar-case in the corner of the back drawing-room. When I found it, I thought—well, if you will not let it be put on the table, it can be put under the table, and will be smoother for you to walk on than the carpet, so I laid it on the floor and put the table on it; it remained there that evening, but next day it was gone. It was

not found till, in hunting for some missing cards, it was found (not rolled as before) but neatly folded up and stowed away in a cupboard in the back drawing-room, which was never used. We feel sure that our servants had nothing to do with these transpositions, nor would I relate them, if the same sort of action was not recorded in Mr. Home's and Mr. Coleman's work.

No one who has not witnessed it could form an idea how very perfect a conversation can be carried on by questions requiring only three sorts of answers—*yes*, *no*, and doubtful. In plain conversation, the raps are consecutive and without particular emphasis; but, if the question is asked, "Are you sure?" the raps are, so to say, solemn and distinct. Again, the doubtful rap has its *nuances* —it may be simply two raps, or a rap and a little one. Then the angry rap; there are persons who, from some, to me, unknown reason, are what is called antagonistic; and, if they sit down with others at a table, the manifestations are confused. I accompanied a very esteemed friend once to a soirée, and there not being room at the table, I sat near the fire and fell asleep. When I awoke, I heard the parties round the table endeavouring to obtain some manifestations, but quite uselessly, the table only moving a little, but exhibiting no intelligence. I said to my friend, "Let me take your place." We were then five persons at the table. The table began immediately tilting to the alphabet,—tilting is striking the floor once or three times with one leg instead of rapping,— and two moral sentences were spelt out. The one was, "The Spirit of Good governs the universe," or some such phrase; and, on the parties present asking the name of the "good spirit," the name Zoroaster was given. How Zoroaster, who died 4,000 years ago in Persia, should find himself in Regent's Park; and why, being there, he waited for my sitting down to the table before he said a word, I leave to Zoroaster himself to explain. There was, however, an Indian lady at the table who understood Persian—and I have always noticed some link between the sentiments and the persons present; though, really, at times, the remarks made are so perfectly original, that one feels that one is in the company of a perfectly and entirely distinct and separate thinking being. The evening before last (after a long period of

interruption of our séances, occasioned by a very severe cold and cough), we held a séance, and the first communication was "Don't be afraid, I will take care of your house;" and, naming the lady. As she has several houses, she asked which, and it named her present residence. "Indeed," said she, "Mary Jane, I am very much obliged to you; but I am not at all afraid about my house, indeed I was not thinking of it at all." Subsequently, the same lady said, "Mary Jane, will you come to my house?" "Yes." "Will you rap and let me know you are there?" "Yes." "Where?" "In the bed-room." "When?" "On Wednesday."

Whether or no, a being that can roll up a piece of India-rubber cloth, and carry it away and hide it; and that can draw flowers and buds in colours, without having any colours or pencils given it; can go fourteen miles and rap in a lady's bed-room, is a puzzle; but it would not be more astonishing, nor indeed so much so, as some of the occurrences related in the Spiritual Jottings.

To revert again to the conversation—our Mary Jane has always been a kind and good adviser, and would never allow any disputing; and, once, when an altercation was getting unpleasant, she stopped it with a crash like a sledge-hammer on the table that made the bottles and glasses ring. "There," said I to my wife, "you had better say no more: Mary Jane won't have it." If the sentiment she wished to express was more than Yes or No, she rapped five for the alphabet, and always spoke quite to the point in the fewest possible words.

If my wife is holding the guitar, Mary Jane will carry on the conversation by sounding chords on the guitar, in preference to rapping on the table.

Another curious phenomenon for science is the following:—We were three, at a lady's house, at the table; my wife held the guitar, which was being played on. Without thinking of any results, I got up and went to the fire. The guitar stopped. "You have broken the ~~charm~~ chain," said the lady. I sat down and placed my hands on the table. The guitar resumed the tune. I repeated this three or four times.

Again, Mr. W. was playing the violin, I and my wife at the table, the guitar accompanying. I told Mr. W. not to stop

playing at anything I might do. I got up from the table—the guitar ceased responding. I went to the other side of the table, and, standing as far off as I could, took my wife's other hand. In 10 seconds the guitar resumed playing. I dropped the hand, the guitar stopped; I took it again, and it continued.

Looking at my Memoranda, I find the following on the subject of the Medium's hand being guided:—"As to any collusion, the following method destroys that entirely. I write a question on a slate without my wife seeing it. I turn that slate over on the table. She covers it with her silk apron, and Mary Jane guides her hand. She neither knows the question I have written, nor the answer Mary Jane has given; and yet, in every instance, the answer is perfectly pertinent to the question.

I now come to the most singular, and though not more extraordinary than the other manifestations, still, perhaps, the most valuable. I mean the direct drawing. Monday, Feb. 9.—When I went up to tea, I found the ladies round the table, making Mary Jane tell them which dominoes to play—the dominoes being turned face downwards. By-and-bye, Mary Jane asked for the alphabet, and said, "Have patience, and you shall have a flower." The ladies had put two sheets of paper and a pencil on the carpet under the table. Perhaps half-an-hour after, Mary Jane was asked if she had written anything. "Yes." The sheets of paper were found folded up with a flower drawn on each—the one a Tulip, the other a Rose, drawn in that style of Penmanship in which Schoolmasters draw swans, rather roughly done, but quite clear drawings of the flowers. The ladies were highly delighted, thanked Mary Jane, and asked who the drawings were for—and in this, and all subsequent drawings, the same ceremony was observed, Mary Jane answering "No" until the right person was named.

The séances now became highly interesting—because, however, you may relate to a friend the sayings of Mary Jane, or a good spirit representing a husband, wife, sister, or brother, by the ordinary mode of rapping, or by the medium's hand being guided, it is open to a host of suspicions—so, indeed, may a writing or a flower be—but when you can aver that you laid the sheet of

paper under the table, and never quitted the room until it was taken up, and that no one looked under the table the whole time—the affidavits of two or three persons of unquestionable veracity, respectability, and position in life, would puzzle a Jury to give a negative to.

Before going on, however, I must say something about these raps; they seem not confined to any particular part of the table, for different persons, at the same table, declare them to be in different places—they are also under the control of the good presiding spirit, for Mary Jane will often rap anywhere she is asked to. A lady from the country came with her friend, and, after a first surprise, thought Mary Jane a very agreeable person—and to sit down and play dominoes or cards (for Mary Jane was always made to play dummy, and nearly always got the game,); and then to find five or six pretty flower drawings under the table, was a very pleasant way of passing the evening. So her friend, talking of the raps, said, "Mrs B., put your head under the table, and you will hear the raps on the top of the table." "No, thank you," said she, very decidedly, "I won't put my head under the table." "Well," said I, "lay your ear or your head close on the table." She did so. "Now," said I, "Mary Jane, give three good raps, right under Mrs. B.'s ear." She started up, and looking at me, said, "You did that." "Did I?" I replied. "Well, now lay your head on the table again, and think of a particular number." She did so. I said, "Now, Mary Jane, rap under Mrs. B.'s ear the number she is thinking of." Five raps were heard. "It is right," said she. "Try again," said I. She did. Nine raps were heard. "Quite correct," said she. But the raps will take place on silk or cloth, or on the wall. If, after the room was thoroughly, so to say, mediumised, if my wife sat away from the table, and I stood near the fire, Mary Jane would answer me by raps, apparently on her chair. There is, however, a phenomenon about these raps which I cannot at all account for, and which I must place under two aspects to comprehend. Several times, friends have called on me during the time the ladies were in séance in the drawing-room, and as the séance was strictly private, they sat with me in the parlour, under the drawing-room, and heard distinctly the continued

assentient or dissentient raps, as Mary Jane was appealed to which domino or which card should be played. The raps were therefore heard distinctly through the floor. Now for a puzzle. I have gone up to go to bed with my wife; at the bed-room door we have separated; I went into my dressing-room behind the bed-room, but with a door communicating with the bed-room—a door of the very slightest deal, in front of which, in the bed-room, is a chest of drawers; and, after I had closed the door of my dressing-room, I have heard excessively loud raps, such as I suppose could be heard all over the house. Going immediately into the bed-room, fearing my wife was frightened, I found her beginning to undress. "Did you rap." "No." "There were very loud raps indeed on the door." "I have heard nothing." The same thing occurred to my wife, who asked me if I rapped. At last I said, "if ever you want me before I return from my dressing-room, rap and speak, that I may know."

Our séances became now more interesting; for, every evening, flowers of some sort were sketched with the pencil, and the style of sketching improved,—when a new phase took place. We had been out at a séance, when, among other table productions of that hospitable mansion, was, on a paper folded up very small, a very "smudged" design of flowers, in colours. Where the colours came from, no one knew. I asked Mary Jane if she wanted any colours. "No." Considering that this mysterious being might possibly condense colouring matter out of the atmosphere, possibly photographically, I enumerated all the photographic materials,—nitrate of silver, iodine, &c. &c., all which she negatived, except chloride of gold, to which she gave an affirmative "Yes."

So I took some straw paper, and soaked it in an extemporised solution of chloride of gold and iodine; the ladies put under the table what paper they pleased—thin letter-paper, French note-paper, &c. From that time we ceased putting any pencil under the table, as we got a kind of crayon-stencilled-looking flowers. The paper seemed indifferent, whether chemically prepared by me, or French glazed note-paper. As I considered that every

production of this mysterious being must have its origin in the imagination of some one present, I thought that the stencilled-looking flowers might represent some pattern in one of the papers of the rooms. But no. However, to try, I went and bought a very pretty room-paper, with a pretty flower design on it, and, cutting off a piece, made a covering to the table with it—considering that my wife or the other ladies sitting and having it before their eyes might give a clue. The next day the paper was found torn by invisible hands, and finally carried away in bulk, and hidden in the cupboard of the back drawing-room, but an endeavour had been made, or was the next evening, by the same invisible agency to copy the flower centre-piece of that paper, as though it were done by dumping, super-position, and pressure. That, however, was not continued by Mary Jane; but, in return, every evening brought a visible amelioration in the style of execution and design, the extraordinary colours and composition of which preclude the idea of human agency; or, at least, friends that have seen them state their utter incapability to comprehend how they could have been done, or where the colouring matter could have come from. Matters being so, one evening a lady asked "Dear Spirit, could you draw me a butterfly?" The reply was, "To-morrow;" and next evening a butterfly was sketched in crayon on a paper with other drawings of flowers, and Mary Jane in due form declared it was for the lady who had applied for it, and received her thanks.

One evening, a laughable circumstance took place. After we had had enough of the violin and guitar, there was a pause, and my wife proposed to a lady present a game at dominoes; and they took the small table covered with zinc, and, seated opposite each other, began playing. Meanwhile, Mr. W——, perhaps from the tedium of having nothing to do, took up his violin and began to tune it. Forthwith the table, with the dominoes on it, began to move. "Play on," said I. The table began dancing. The ladies tried for some time to keep the dominoes on the table; to play was out of the question; at last, with one violent bound, the table pitched all the dominoes off, and continued dancing alone, nor did it stop still till it got about four feet from the ladies.

Before I continue the history of our drawing séances, I must extract from my diary a circumstance which has thrown very considerable light on this phenomenon, and which, like every other discovery I have made respecting it, has happened entirely by chance.—"Feb. 1st, at about nine o'clock in the evening, I had gone upstairs, and returned into the drawing-room, when my wife said, 'Come here a minute.' I followed her into the back drawing-room, she shut the doors, and said 'Look at my fingers.' I looked, and saw the tips of them covered with a phosphoric light, which, however, immediately went out. 'Stop a bit,' she said, and in half a minute showed them again illuminated as before. 'I do it,' she said, 'by keeping the ends of my fingers tightly pressed together, and then, when I open them, there is the light.' 'How did you find it out?' said I. She replied, 'While you were upstairs, I had the cramp in one of my fingers, and I pressed them together with the other hand to deaden the pain, and, when I opened my hand, there were the lights.' 'It is phosphoric light,' I said.

"Feb. 2. Our friends came to the séance. I read them the minutes of the above-stated event (as there was no one with us when it first happened) and we then adjourned to the darkened room to see it. As she opened and shut her hand, it had the appearance of glow-worms moving about. Mrs. — said she saw a half-luminous vapour from the whole hand.

"Feb. 3. Our friends being present again, we adjourned at nine o'clock to the dark room, then darkened more effectually than before. The lights appeared, and Mrs. — said, 'See how it fumes.' On a sudden, taking my wife's hand, she exclaimed 'How strongly it smells of phosphorus!' The other lady smelt it also, and found phosphorus. So did I, and my wife smelt her own fingers in much alarm, and said, 'It is very strong of phosphorus.' 'But,' said she, 'excuse me, is there any smell of phosphorus when I do not produce the lights?'—'None whatever.'

She then again stated, "I produce the lights by putting the ends of my fingers and thumb together, and pressing them against my body, until it is almost painful; and then, on opening the fingers, there are the lights.

Since that period, my wife has had a very severe illness and inflammation of the lungs, from imprudently staying in a damp garden, and was consequently under very strict medical treatment; and during that time the phosphorescent appearances on her fingers ceased entirely; and once, in sitting down to the table, (which the doctor prohibited,) it would scarcely move.

To return to our séances, every evening we put paper of all sorts under the table, and asked Mary Jane if she wished to play dominoes or cards; and at about ten o'clock, divided, or rather let Mary Jane divide, the five or six drawings we found under the table; but we were very much puzzled how to preserve them, as they are done in a kind of crayon colours—red, green, purple, yellow, and blue—artistically but incomprehensibly laid on, but which are susceptible of damage by rubbing. So we discussed the subject of varnishes; when one lady said, "Dear Spirit, could you not varnish them for us?" An affirmative three raps said "Yes." We all laughed, and exclaimed "Why, Mary Jane is going to varnish them for us!"

The next evening, when we took up our pictures, we all remained mute with astonishment, for the last picture taken up was in a style entirely different from the preceding ones, and perfectly varnished.

What shall we arrive at next? we asked one another. Here is nothing but paper and cards, which each has bought where he or she chose, put under the table—no colouring matter of any sort put; some of the paper put in small paper books: and yet, here are exquisitely finished varnished drawings produced.

We lost ourselves in surmises whence our mysterious friend could produce the colours; we knew she was quite capable of taking things about up and down stairs, and hiding them, and three or four days after telling where they were; we also knew, from our own experience, as well as from other spiritual books, that she could write and draw flowers when pencil and paper were given; but the colours—did she steal them from the paper on the walls? Or did she take a box of crayons? Or did she condense them from the atmosphere, as flowers seem to get their colours? We can neither comprehend nor explain. We were the same

parties throughout, with the exception of the lady who very positively declined putting her head under the table, and one servant girl of nineteen, who, at all events, never touched anything under the table.

Unfortunately, three or four days after the foregoing events, my wife took the severe cold on her lungs, which I have before alluded to; and, our friends having been obliged to receive visitors at home, our séances have been suspended.

This completes my narrative. Of the sayings of Mary Jane, I could give a book-full. Once she said, "Keep your servants in their places, and you will be wise." Whether she alluded to the before-mentioned Susan, I do not know; but I believe my wife highly approved of the remark. Another time, when she had not made any drawing, I said "Mary Jane, you are very idle." She replied "No," and by five raps, called for the alphabet, and spelt out, "Not so idle as you." She would tell at any time what o'clock it was; and if Mrs. ——'s carriage was not come, she would tell how many minutes it would be before it arrived; in one instance, she rapped thirty-five times, and the carriage came exact.

At our supper, after the séance, she conversed quite as much as any of us; whether she was addressed as "Good Spirit," "Dear Spirit," or "Mary Jane," it was all the same; and when a lady who had received a reply to a mental question, asked if it was the spirit of a loved deceased relative which gave the reply, the answer was "Yes."

Now, until scientific men of the highest class have thoroughly explained this phenomenon, the world will be all at sea about it; and very great numbers (including those in America—millions) will be of opinion that these phenomena are produced by the spirits of deceased persons.

I shall be perfectly open to believe in that theory, as soon as any evidence brings conviction to my mind; but I must here declare, that, up to the present time, not one communication, nor action, nor sentiment, has taken place or been received, by me or my wife, tending in the remotest degree to give rise in our minds to the idea that any of these occurrences were the work of anything whatever connected with deceased persons; and my wife

has confessed to me, that she mentally earnestly wished for a communication from a beloved deceased relative, but that nothing of the kind has occurred to her. Further, if you look back to the séance my friend W. pressed me into at the medium's house, in Bloomsbury, where I was told that a deceased uncle and brother were present, and told me to fear God, and lead a holy life—I should think that if any of my worthy relatives, or my wife's, from Adam downwards, wished to communicate with me, or us, they have had whole days and nights, with a comfortable house, and pencils, paper, and ink, at their command, and might have adduced such convincing arguments, or even acts, as to carry implicit conviction to my mind.

That there is very high testimony to its being the spirits of departed persons, I allow, having continually seen ladies conversing with the (supposed) spirits of their deceased relatives at our table, and receiving the most assuring messages of love and affection, but whether it was really those spirits, and who accompanied them in their carriages on the visit, or whether it was our Mary Jane, who echoingly answered the sentiments they expressed, is a matter for discussion between scientific chemists and theologians.

Our Mary Jane delights in accompanying the violin on the guitar, in the fastest waltz, in playing cards and dominoes, and in making very smart answers to any remarks addressed to her, and when we are alone, gives her opinion respecting persons and things in the most unreserved manner; but as to her having at any time been the denizen of any other corporeal body than that which she now has, our evidences carry the most profound conviction to our minds of the contrary.

What, then, is this mysterious being? I will explain to you my version of it—premising that science has an immense, an enormous, and a most invaluable field for discovery in its researches into the nature of it; and that if ever it is taken up by scientific men, in the manner it deserves to be, more light will be thrown on the generation and subsequent changes and progressive perfection of organic bodies of all sorts, and in the action of food and medicines, and very probably on the causes of the motions of the planetary bodies, than by any study which has hitherto occupied the scientific world.

First—What is Man? (and this term equally applies chemically to the whole organic world) Man is a condensation of gases and vapours, every one of which are floating round us in the atmosphere. Out of his total weight of 154 lbs., we have in the Man—Oxygen, 111 lbs., and he is inhaling it every instant; Hydrogen, 15 lbs., a gas we burn; Carbon, a gas, when combined with Oxygen; Nitrogen, part of the air we breathe; Phosphorus, which is all around us in every plant and animal, which we eat at every meal; Calcium, liquid in water; Sodium, liquid with Chlorine; and other metals in very small quantities, all susceptible of liquidity.

Man is not conscious of it, any more than he is conscious that when he is eating roast beef, he is eating nitrogen, phosphorus, calcium, sulphur, potassium, and iron; few even are conscious that, in taking salt, they are eating chlorine.

Man is continually giving out these vapours, which are in fact a part of himself; he is conscious only of one thing, and that is, that if they escape a little too fast, he feels cold.

The quantity of these vapours is immense; as I said before, the runaway negro leaves his track distinguishable by the blood-hound for 100 miles—we scarcely perceive it, but if a dog has lost his master, he knows if his master has been in any room he goes into; such is the absolutely distinctive difference of the emanations from each individual.

These emanations are as positively material, as the individual himself is material—as material as, if you scent a large room with one drop of Otto of Roses, every particle by which you perceive the scent is as material as the whole drop itself was.

Now these emanations correspond exactly with Baron Reichenbach's description, in his Conclusions, p. 210, of Odyle, namely—

"A peculiar force, distinct from all known forces."

"Essentially different from Magnetism."

"Bodies possessing it do not assume any particular direction from the earth's magnetism."

"In animals, at least in man, the whole left side is in odylic opposition to the right. The force appears concentrated on poles in the extremities; the hands and fingers, in both feet, stronger in the hands than in the feet."

"The odylic force is conducted to distances yet unascertained by all solid and liquid bodies; not only metals, but glass, resin, silk, water, dry wood, paper, cotton cloth, woollen cloth, &c."

"Bodies may be charged with odyle, or odyle may be transferred from one body to another. In stricter language, a body in which free odyle is developed can excite in another body a similar odylic state."

"This charging, or transferrence, is effected by contact."

"The charging requires a certain time, and is not accomplished under several minutes."

"The odylic light of amorphous bodies is a kind of feeble external and internal glow, somewhat similar to phosphorescence. This glow is surrounded by a delicate luminous veil, in the form of a fine downy flame."

"Human beings are thus luminous over nearly the whole surface, but especially the hands, over the palm of the hand, the points of the fingers, the eyes, certain parts of the head, the pit of the stomach, the toes, &c."

"Flaming emanations stream forth from all the points of the fingers, of relatively great intensity, and in the line of the length of the fingers."

"All these flames may be moved by currents of air; and where they meet with solid bodies, they bend round them, just as ordinary flame does. The odylic flame has therefore an obviously material (ponderable ?) character."

"In the animal economy, night, sleep, and hunger depress and diminish the odylic influence. Taking food, day-light, and the active waking state, increase and intensify it. In sleep, the seat of odylic activity is transferred to other parts of the nervous system."

At the end of Baron Reichenbach's book is a plate of a human hand illuminated by the odylic glow, which exactly represents the lights on my wife's fingers, and, no doubt, if we had taken the precautions the Baron did, of having the room perfectly darkened, and remaining half an hour in the dark before making the experiment, we should have seen the whole hand even more vividly illuminated than that plate represents.

The whole of this description applies exactly to the force or power evolved by a medium in putting her hands on the table; after a while the table becomes charged, its movements are not subject to any known law. If my wife and I were sitting opposite, at times the table would force one or the other of us against the opposite wall of the room, at times go half round and back again, at times lift and stamp with one leg. Further, the Baron's description tallies with my experience; in sleep it stops—hunger diminishes it—after eating and taking wine it is stronger. The description is exact; but the Baron, although he states that the power evolved is a material one, does not state what it is materially composed of; nor does he, in the slightest degree, allude to the commutation of that power into Intelligence. His book is, however, one of the most valuable that has been given to the scientific world.

I pass now to Mr. Home's work, to notice particularly the continued appearance of odylic phenomena; that is, of the action of a material element. Mr. Home truly says, "The manifestations came on me quite unsought; I have not, nor ever had, the slightest power over them. What may be the peculiar laws under which they may have become developed in my person, I know no more than others." As I have had at home the greater part of the communications detailed in Mr. Home's work, including also the manifestations (by our visitor friends) with the spirits of deceased persons, I can corroborate the truth of the greater part of his narrative. But why the spirits of deceased persons seemed to communicate with him, and why the mediums in Bloomsbury said they were present there to communicate with me, and that they should totally decline to visit me at my own house, and a lively, talkative, musical, and artistical Mary Jane come in their stead, is what I do not understand. That Mr. Home was taken up to the ceiling, and carried about, derives a corroboration from the circumstance of the zinc plate, which I have related—and which proves that, when a number of persons, particularly if several have mediumistic power, are in a close room for some time, the whole room, up to the ceiling, becomes filled with the odylic vapour.

In Mr. Coleman's Book, allusion is frequently made to Odyle,

under the name of Magnetism, p. 33. A lady elicits sparks from her hair in combing, and lights gas with the ends of her fingers. At p. 50, the so-called spirits dip their hands in a solution of phosphorus. I mention this without clearly comprehending it.

One part, in Mr. Coleman's book, exactly corresponds with our experience, p. 58.

"This result has only been arrived at after frequent sittings and the most patient attention to conditions. At first, the initials of the name, rudely done, was all the spirit could execute; but, by perseverance, from these rude beginnings, has the writing been brought to its present state."

So with us. We first had a table, or rather, I filled my room with tables, to see which moved the best; but it was nothing but motion. Then came talking, and Mary Jane's powers of conversation improved daily; then writing, or rather not writing, but quantities of unintelligible scribbles and flourishes; then drawing flowers with a pencil; then stencilling or drawings in colours in that style; and then varnished painting.

I now come to the theory of Mons. Allan Kardic, in his "Livre des Mediums," p. 61. "There is in man three things:—

"1. The Soul or Spirit. 'Principe intelligent en qui reside le sens moral.'

"2. The Body. 'Enveloppe grossière matérielle dont il est temporairement revêtu pour l'accomplissement de certaines voies providentielles.'

"The Pér-esprit, 'Enveloppe fluidique, semi-matérielle servant de lien entre l'ame et le corps.'"

No. 1. Mr. Kardic's Soul or Spirit must be chemically considered as a quality or property, inasmuch as it is represented as immaterial. So a magnet has the property or quality of attracting iron; this quality, therefore, would represent the spirit of the magnet. But the quality or property cannot exist without the material element itself; therefore, what we have chemically is, a material element possessing a quality; but we have no evidence of the quality without the element. Here, however, it may be remarked, that magnets lose and gain power partially or entirely. To which may be replied, that as iron contains carbon,

phosphorus, silicon, sulphur, &c., possibly the power or quality may reside in some or all of these collectively, which would still be the same thing, viz., elements having qualities inseparable from them.

No. 2. Mr. Kardic's description of the Human Body, as "grossière et matérielle," is neither complimentary, chemical, nor anatomical. Quite the contrary. The human body is a miraculous condensation of oxygen, hydrogen, carbon, and other aerial gases, combined with phosphorus and the most electrical metallic elements; and the anatomical and microscopical examination of every part proves throughout a design, carried to an extreme of minuteness, which our best microscopes, though magnifying 1,000 times, fail thoroughly to investigate; and, moreover, the human body is entirely composed of the very elements which constitute Mr. Kardic's—

No. 3. Le pér-esprit, which he designates as "fluidique, semi-matérielle, servant de lien entre l'ame et le corps." This is a very imaginative but very unchemical description; but he tries to help his readers, by stating in the next sentence, that the pér-esprit "bien que fluidique éthérée vapoureuse, invisible pour nous dans son état normal, n'en est pas moins de la matière, quoique jusqu'à présent nous n'ayons pas pu la saisir et la soumettre à l'analyse."

In his own words, it is a material substance which he knows nothing about. Moreover, he says that the esprit No. 1, is never present without its covering No. 3. But he says nothing about the pér-esprit existing without the attendant esprit or soul.

If Mr. Kardic means to say that, wherever intelligence is evolved by a medium there is a pér-esprit and its attendant esprit, and that these belonged to a deceased person, then a medium can chain ten deceased persons' souls to ten different tables at the same time; for, if a medium sits down to a table, it will begin to give rational answers in about ten minutes; and, when so charged—for it is in reality the Odyle of Baron Reichenbach that it is charged with—if she goes out of the room for three or five minutes and returns, the table responds instantly on her return, proving that the Odyle, or Mr. Kardic's pér-esprit has not left it. She may then go into another room, leaving Mr. Kardic's

pér-esprit and attendant soul waiting, and in ten minutes charge another table, which must have another pér-esprit and another deceased person's soul, as the first has not left the first table; and so, if Mr. Kardic's theory is right, she may have ten deceased persons' souls chained to ten tables at the same time; for Mr. Kardic distinctly says that the esprit cannot exist without its pér-esprit, which serves as a kind of envelope.

All this may be so, but I should feel more inclined to admit Mr. Kardic's theories, if he was better up in the anatomy and chemistry of the human body; and if, when he tells us that the pér-esprit is material, he told us what material elements it is composed of.

The only thing valuable to the chemist in Mr. Kardic's works is the admission of a material substance in these phenomena; and, therefore, we can trace the existence of a material substance accompanying these phenomena in the works of every writer on the subject, say in Germany, France, England, and America.

But this Odyle or pér-esprit is easily traceable in the emanations which take place from the human body; and, though not so easily demonstrable by direct *catching* and condensation, are easily shown by inverting the reasoning. Take a candle, which is a solid comprehensible thing; now, burn it. Where is your candle? It exists materially, just as much as before you burned it; and, in so burning, or being decomposed into carbon and hydrogen, it has given out light. But to catch it again in the state of a candle, it will have to be absorbed by the vegetables and eaten by the animals, and then you have your candle again.

Therefore, to find what the pér-esprit or Odyle is composed of, we must find the constituent elements the person it emanates from is composed of.

As the rest of Mr. Kardic's works travel in the rail laid down by his first theories, the conclusions correspond with the premises. He proves, however (if his theories be true), such myriads of spirits of all sorts always about us, and those of all sorts, good, bad, and indifferent, that, in mentioning the matter to my friend Baker, I stated my apprehensions that accidents must happen among them from the crush, as there were when the Prince of

Wales and his bride passed through London. Baker, however, relieved my mind by assuring me that spirits can walk through one another and not feel it. This I consider as one of the most valuable communications I have had from the spirit world; and, if *we* could imitate the spirits in that respect, it would be delightful in crowded thoroughfares.

The proposition may therefore be stated thus:—The human body is continually giving out, in the shape of vapour, the elements of which it is composed, and which are as essentially material, as the steam from a steam-boiler is as material as the water.

That these elements, after being elaborated in the body, are, so to say, distilled, somewhat as a chemist distils essences.

These vapours will represent, therefore, Oxygen, Hydrogen, Carbon, Phosphorus, Sodium, Chlorine, &c. &c.

That these vapours have peculiar qualities.

That, owing to the quality and quantity of these vapours given out by certain persons, under certain conditions, they possess a living, acting, and thinking vitality; a vitality, in some cases, superior to the being they emanate from; for, if a human being be suddenly and entirely deprived of air, its existence terminates in a very short time—whereas, instances appear to exist where the vitality of this eliminated vapourous being must have existed for a considerable time after the parties from whose bodies it was eliminated have left the room.

That the properties of the vapours so eliminated, are power and Intellect.

That the power is manifested in modes which, to us, at present, appear to be at times without any intellectual motive, and at times with intellectual intentions.

That the intellect manifested appears to be, in great part, the reflection or embodiment of the minds of the parties present, and by contact with the table giving out vapours, not by any means entirely of the medium, as the medium seems to act rather the part of a steam-boiler, furnishing the materials for the vapours eliminated by the other parties present, of developing that intellectuality which otherwise would not have strength enough to make itself evident.

Thus we see that, in a reunion of talented ladies, music is played, flowers, and butterflies, and birds drawn, and a lively conversation takes place. Where the opinion firmly exists that the intelligence is the spirits of departed persons, the reflection of sentiment is precisely such as the parties holding that opinion would anticipate from the objects of their affection.

If the mind of the parties present is deeply imbued with superstition, the reflections will be given fully in that sense, as exemplified in Kardic and Guldenstubbe's works.

In Baron Guldenstubbe's publication, you have the signature of Heloise on the tomb of Abelard and Heloise, and the signature of a Nun on a church. The fervent French officer would have a communication from Napoleon I. in his terse style.

In reasoning scientifically on these matters, the question resolves itself as follows :—" Is there one agency, or are there two ?"

We know that a person without any belief in the matter at all,—but whose fingers give out, at times, phosphoric lights,—by placing her hands on a table, causes that table to move; and that, subsequently, by the same material agency, that is, the phosphorescent emanations, the other phenomenas are produced. Here is a material element and a result. Upon what scientific grounds can we introduce another element, the spirit of a deceased person. Theologically, certainly, if you think proper to believe that, because a sentiment expressed was owned to under the name of Zoroaster, Confucius, or one of the Apostles, or Napoleon, or Washington, that the spirit of that party really was there and dictated it, you may do so; and you have an equal right to believe that every dream is the embodiment of real persons then and there present, but science must have better proofs

At the same time, the nature of the living and thinking being so called into action is very wonderful, and it seems to me somewhat in this way: Suppose I have no particular opinion on a subject, and I read a well-written article in the *Times*, I then have an opinion, the reflected opinion of the author of that article—by-and-bye I read an article on the same subject in a paper directly opposed to the *Times*, but still a very good article—my opinion is then modified between the *Times* and the other paper;

perhaps I read articles in four or five papers on the same subject. What does my mind represent? Not an idea strictly of its own, but the summing-up of other persons' ideas, just as a Judge sums up the evidence to a Jury. So it appears that, when several persons sit down to a table, and procure what are called spiritual sentiments, they will represent the summing up of the mixed ideas of those persons.

Still, there is another very important phenomenon, the being so produced has certain faculties which the parties producing it do not possess; and this gives colour to the surmise, that there is a universal thought-atmosphere which pervades the whole earth; and with which this being enters into communication—for how else could it answer mental questions, if it was not in thorough telegraphic rapport with the mind of the person asking? How read a folded-up writing which no one but the writer has seen? How tell unfailingly whether cards are honours or not when not shown? How point out what dominoes are with their faces reversed? How do a hundred of these wonderful things recounted in spiritual publications occur, which would be utterly unbelievable, but for that reasoning on antecedent facts, by which we should not hesitate to-morrow to believe that we could travel at the rate of two hundred miles per hour by the Railroad.

I must now pass to another subject—this being—this emanation from our bodies—thinks; it sees, hears, smells, tastes, feels, and is pleased, laughs heartily, or is offended and will shake the room and knock the table like a sledge-hammer—but it thinks, and thinks deeply and profoundly.

Chemists have hitherto had nothing to do with thought. It appears to me that they must now take up thought as a quality or property of matter. Here is the case for consideration. A medium, a thinking being, places her hands on a table, and after a lapse of some minutes, holds conversation with another being, which has been eliminated from her body, but which is totally distinct from her body, as distinct as the child at the breast is from the mother, and exist just as the child, on the conditions of the supply of nutriment being kept up—and this being is composed of nothing else but the vapours which have emanated

from the medium's body; and this being can tell the medium things which her own faculties are unequal to.

We now come to Phosphorus, which forms nearly 2 per cent. of a man. Mr. Kyan says, page 109: "If the brain of a man has only 1½ per cent. of phosphorus, he is an imbecile; if he has 2 to 2½ per cent., he is of sound intellect; if 3 per cent., a degree of eccentricity; if 4 to 4½ per cent., complete insanity." Evidently Phosphorus has something to with thought and intellect.

We come now to Mons. Boinet's work on Iodotherapia, and find that Mons. Chaton states that the absence of Iodine in the air, in certain countries, is the cause of the degradation of the human species.

Further—the researches and observations of Messrs. Boussingault, Gange, Cantu, and a number of scientific men, prove that in those geographical, geological, and chemical "milieux," or situations where iodine is deficient, cretinism or imbecility abound. This points strongly to iodine as having properties related to intellect—and salt, in which the metal sodium is but the vehicle for chlorine, what would the world be without it?

If scientific men take up this matter at all, it is evident that they must take it up on the consideration of intellect as a property of matter; otherwise, it will go on as it is now, as a theological belief; that is, a belief without a proof; for, as to the theory that these manifestations are spirits of departed persons, the reason to the contrary is, that all force expended requires to be furnished from some source, and a medium kept without food would soon cease to make a table move. And even admitting that, for some time after apparent death, the fluids of the body may possess a quasi-existence, as is demonstrated by the effects of galvanism on the dead body; still, this is only an ever-diminishing effect, like the phosphoric lights seen over recent graves, and which proceed from the liberation of the phosphorus contained in the bones, and for want of nutriment must cease, as it was observed by the Baron that the phosphorescent appearances were only over recent graves. That a perfectly reasonable and highly intelligent being is absolutely produced by one or more persons sitting round a table, the said persons being all the while in the same health and state of

entity as they were before; and that, abandoning that one to go out, as a lamp without oil, they can go into another room, or to another table, and produce another material, though vapourous being, and this three or four times a day, as our friends in Bloomsbury have for years past, must inevitably force the conviction on chemists and scientific men, that matter and intellectuality stand in the relation of cause and effect.

As to persons being touched by supposed spirits, it has occurred continually at my house, and my wife has had her dress pulled, and her chair (with her on it) drawn back bodily; but these are secondary things; for, given an invisible power that can raise a gentleman up to the ceiling and carry him round a room, and we shall be able easily to believe many other feats of the same power. That this material vapour may have also the power of taking the shape of hands, &c., is credible, though I have not seen it; and that it may take the shape given it by the imagination of the medium, or of some person the medium is in communication with, is not absolutely deniable with the facts before us; and it is also conceivable that a phosphoric vapour, though invisible by day to the human eye, may affect a photographic plate, and so produce a spirit picture of a lady playing a guitar, or a young gentleman reading a book.

I do not vouch for the modus of these so-called spirit photographs; I only endeavour to account for them materially, upon the supposition that, if the spirit of a lady could come to have her portrait taken, it is difficult for the most acute theologian to account for her bringing the spirit of the guitar she was in the habit of playing on while alive. That the theory of so-called Spontaneous Generation is fully accounted for by this phenomenon I fully believe—first, a vapour being a power, and then a formative Intelligence; so cheese, highly phosphorescent, evolves a vapour, and the power and intelligence form a maggot; and so of all the animalculæ formed in water.

The cures wrought by Mesmerism are equally clearly explicable by this phenomenon; for, if we reflect that the emanations from the fingers have the actual power of moving a large table, we can well imagine that they have the power of removing and forcing

into the circulation, or of neutralising, the humours which by their stagnation caused the disorders; and I now firmly believe that in the case of the man whom I saw cured by a Mussulman in Calcutta, of the bite of a Cobra di Capello, the poison of the snake was, by the mesmeric power, positively drawn out of the pores at the end of the finger, and the man's life thereby saved.

As for believing in the phenomena produced by mediums, no one could possibly disbelieve it more than myself and my wife, for we saw the mediums perform twice—once at their own house, and once at mine—and still we did not believe; and when my wife told me that the table moved for her, I only believed that she believed, and I passed through an oscillating state of belief already described to me—"You will believe, and then you will consider it merely the effect of imagination, and disbelieve, and then again believe, and again disbelieve." As soon, however, as the phase of intelligent conversation is reached, disbelief is impossible, for the answers are given without the medium seeing the alphabet, and by pointing to the letters, and not calling them out aloud; and the medium is perfectly unconscious of the replies, or sentiments expressed.

During the time I have been writing this article, I have had continually with me the spirits of several ladies—not deceased, but in very high health—who are now reading this book. The spirits came beforehand, and looked over me while I was writing, and they asked me a quantity of questions.—"What sort of a person is a medium?"—"Am I a medium?"—"In what does mediumistic power consist?"—"Can I become a medium?"—I will reply to *you*, Ma'am; but I must be careful what I say, for mediums are very easily put out of temper. However, I will put a few leading questions, to ascertain whether you have the necessary qualities to become a medium. Have you a good taste in dress? And in jewellery? Are you proficient in making all sorts of ladies' knick-nacks? Can you ride five-and-twenty miles over hill and dale, and find your way back alone? Have you good eyes? Do you excel in archery? Are you a good pistol-shot? Are you excessively nervous; but with a resolution which carries you through in spite of it? Are you jealous, and can't

help it? Can you produce at times phosphoric lights at your fingers' ends? If you have all these qualities, sit down with confidence, and lay your hands flat on a very light table; and in the course of a quarter of an hour you will find a beating sensation in the muscle of the thumb, and at the tips of the fingers, and the table will begin to move. A French lady told me she felt it draw all down her arms, and from her back; and, as I thought that the abstraction of magnetic fluid must promote sleep, I asked her next day how she slept, to which she replied, "Most profoundly."

To continue,—do not sit down to a table hungry, nor in a cold room; in preference, in a room that has been inhabited all day. If you have a musical box, let it play while your hands are on the table. If you produce only one oscillation of the table to-day, to-morrow it will be tenfold; the strongest "manifestations" I have found at ten, eleven, and twelve o'clock at night, after supper. When the table moves uneasily about, you had better think of some name to give your new friend; and, speaking to it, and striking it two or three smart raps with your knuckles, desire it to answer, and most probably you will find your raps echoed and repeated.

You forthwith establish the orthodox spirit mode of communication, desiring your friend to rap once for No, twice for Doubtful, and thrice for Yes; and you must be careful in putting your questions, so that a Yes or No will answer them, or else you will get no answer. If you ask, "Do you like Jones or Smith best?" it cannot be answered without the alphabet; but if you ask, "Do you like Jones better than Smith?" the answer can be made Yes or No.

But the effect is far more striking when you are not the motive medium, for there is a mediumship of intellect, which, though it can neither move a table nor rap, still has a powerful influence. If the motive medium understands nothing of drawing, you will get only scribbles, but if another lady, though not a perceptible medium at all, but a good artist, sits at the table, flowers may be produced. The effect produced seems to me to be this;—a human being, composed of condensed oxygen, &c., as we see it,

gives an opinion; but the vapours issuing from that human being's body, under certain circumstances, and in a sufficient state of condensation, will equally give that opinion, either by answers to leading questions, or by means of spelling by the alphabet, or by guiding the medium's hand. But now comes another curiosity,—suppose the medium who causes the raps, &c., to have no opinion on a subject,—not to understand anything about it,—such as politics, &c., the intelligent vapours from the other party who does understand the question will adapt or embody themselves in the motive-power of the medium, and give an answer in the sense of the party understanding the subject.

I will give you two or three curious instances of this: At my first introduction, at Bloomsbury, to the spirit world, there were plenty of raps, and the table oscillated about, as though some person had their foot under one of the legs, and made it jump, and I was told that plenty of spirits were present; and by-and-bye one of them announced himself as my uncle, and told me to fear God and lead a holy life. Now, this communication was, no doubt, one of the habitual thoughts of the medium.

But, at home, as my wife does not think such a recommendation necessary, I hear nothing either of the uncle, nor of any moral precepts.

Another very singular instance: I have been, since these phenomena occurred, in correspondence with a valued friend, who has seen the manifestations at Bloomsbury, and has witnessed mesmerism and electro-biology, and who does not know what to think about it; and this friend sent me the letters of some clergymen on the subject,—and these letters, really, and pretty unequivocally laid down the axiom, that if the Almighty Power had not constituted the universe, seen and unseen, according to their modes of belief, that he was in the wrong; and that they should not alter their belief to accommodate his mode of doing things. The sum total of the letters appeared, to me, to be nonsense,—but then, I considered that nonsense *per se*, is one thing; but, nonsense coupled with a living of £1,000 a year, is quite another thing.

Such being the state of my mind, and, I may add, my wife,

having heard my remarks, was pretty much of the same opinion—when a reverend friend favoured us with his company, and placed his hands on the table, Mary Jane, making her presential appearance, called for the alphabet, and made a very disparaging remark on the sense of the clergy. I felt rather hurt at such candour; and, pushing the alphabet to my reverend friend, requested him to talk to Mary Jane; but that young lady not only did not retract her former opinion, but reiterated it, adding a personal and very unpolite remark. My wife and I felt much annoyed,—as "language is given to man (Talleyrand says) to conceal his thoughts;" but Mary Jane has no idea of concealing hers. However, we all went to supper, and the conversation turned on the incidents above related, and that clergymen were, as a body, quite as well educated, and, in many cases, as liberal in opinion as the rest of the community. In the midst of this conversation, at the supper table, five loud raps were given, being the indication that Mary Jane wanted the alphabet, and to say something, and that being produced, she said that in some cases the clergy were liberal and enlightened men, thus making the *amende honorable* to our friend's wounded feelings.

Yesterday, my wife and I went to a private séance at Bloomsbury. The company was composed of three powerful mediums, (ladies)—two powerful intellectual mediums (ladies)—and myself. We sat round a small table, which so became embedded in crinolines—the table bounced, danced, and curvetted in so extraordinary a way, that it led me to surmise that we are all wrong now in our system of national defences, and whether fortifications of tables, backed by crinolines, will not be hereafter found more effectual than the devices of Armstrong and Whitworth.

However, our table having, like a young horse, had its kick, we got to conversation, and certainly the *quid pro quos* the spirits then present made astonished the ladies, and gave them good reason to doubt their identity.

When we got home, I explained to my wife the various feelings of all the parties present, and showed her how those feelings had caused the singularity of the manifestations. In the evening, one of our friends came, and we sat down to the table, and Mary

Jane was excessively talkative, keeping this lady constantly occupied with the alphabet.

Nevertheless, we had other conversation, and talked over the immense advantages India would derive from the edifying exhibition the Americans are giving; then we got to Scinde, with one of the Ameers of which I had been intimate; and then down to the Mahratta country and Mahratta wars. In the midst of this, I said, "Mary Jane, do you recollect all about the Mahratta wars?" "Yes," said Mary Jane, as pat as if she had been born there. My wife opened her eyes at Mary Jane being so learned on a subject she knew nothing about. To me it was clear—the lady in question had lived in the Mahratta country, read their history, and the odylic emanations from my wife and this lady forming a telegraphic communication, Mary Jane became possessed of all the information in the same way as my wife would have been if she had attentively read the History of the Mahratta Wars.

The farther I go on, the more I am convinced that this is a very highly scientific question, founded on the effects of positive elements in a state of vapour, and leading to clear explanations of the causes of all deleterious miasma; also the effects of real spirits, such as brandy and gin, which become vapour by the action of the body; and, of the effect produced by the vapour of the poppy, when in opium it pervades the frame. Scientific men will say, "How are we to get at the question?" I reply, by the same process as you would try experiments in photography —you must get a camera and chemicals; so, to study this, you must get a medium. Your medical man can get one for you immediately. I have no doubt that a woman organically best constituted to be a wet nurse, will be found in most instances capable of eliminating the odylic fluid; and my medical friend tells me that a strong animal diet would probably produce the greatest quantity. As the ideas produced by the odylic fluid are reflected, it will be necessary to remove from her mind all idea about spirits of deceased persons, so that the odylic fluid may be as neutral as the milk should be to a child.

When once you have got your table to talk, you may invite all your friends; and if any of them seriously believe that the

responses made to either spoken or thought questions are from the spirits of their departed relations, and they ask for the initials of those relatives,—the initials (which they were thinking about when they asked the question) will be given to them.

The influence of an unseen vapour on the human body is very great. I was at a factory, in summer—A young woman was taken with hysterics. Four or five persons could not hold her. The foreman told me that as sure as one was taken, four or five were sure to follow. This was the effect of the odylic vapours eliminated by the first.

An idea even, without absolute vapour, is at times sufficient to set the minds of a whole nation in a ferment.

As to the odylic flames which Baron Reichenbach proves to issue from magnets, and which are distinct from electricity, inasmuch as they yield to the breath or to a solid substance, it is possible that they are connected with the same substances which give the same results in the human body; for it appears that pig iron contains only 90 per cent. of iron, the remaining 10 per cent. being carbon, silicon, phosphorus, sulphur, and manganese; and Mr. Solly states, that extremely small quantities of extraneous substances in combination with iron, produce most striking alterations, although such quantities may be so minute as to almost elude the analysis of the scientific chemist.

I shall be asked, "How do you account for long and continued conversations with deceased relatives?" I account for them in this way—first, examine the enormous power developed by a medium, and, apparently, by every human and by every animal body; next, consider the enormous effect of the vapours emitted, as demonstrated clearly by mesmerism, where the same odylic fluid penetrates the body, and superinduces a state, in which the whole nervous system is acted on in a manner I am unable to explain clearly; but, most evidently, material portions of another person's nervous system enter the body.

Now, consider a man and woman living and sleeping constantly together, the same emanations taking place and pervading them mutually, as it does by mesmerism, and it is not difficult to imagine those parties having the most vivid impressions of each other, particularly when we reflect that we can look back to our

earliest childhood, and that some event which did not occupy five minutes is still, after long years, as vividly recollected as if it happened only yesterday.

That there take place emanations at the table which, though mixed with and deriving force from the emanations from the medium, still respond to the thoughts of the person they emanate from; and you may conceive that the "wish is father to the thought," and the intelligence responds in the sense of that thought.

In fact, in Allan Kardic's work, he says, p. 376, that "if a person invokes a myth or allegorical person, he will get an answer in the name of that person." That some one called for Moliére's Tartuffe, and forthwith Tartuffe was answered for by some spirit. In fact, p. 334, and many other pages, where he says spirits take the names of St. Paul, the Archangel Raphael, St. Michael, &c., &c., are enough to shake to the foundation any reliance on the name given being in the slightest degree any proof of the phenomenon being connected with the spirits of departed persons.

To me—declaring previously that my mind is quite open to the conviction of the phenomena being produced by the spirits of departed persons, if ever circumstances force that conviction on me—it appears that the belief in its being the spirits of departed persons is the narrowest, the most incomplete, and the most uninteresting part of the phenomenon. That the communications from deceased relatives are consolatory to those particular individuals I allow; but, really, if the concomitant idea is fact, that the spirit of a deceased husband is day and night in the room with his wife, it would operate rather against second marriages. Then, the rest of the communications are of every kind—philosophical, religious, sensual, witty—but not, after one is accustomed to them, very interesting. On the contrary, when I contemplate the fact of a living, thinking, acting vapour, and that the same description of emanations take place from every animal, from every plant, and possibly from other sources—I see the earth, or at least the solar system, as constituting a self-acting intelligent being, and which, in the phases of the world, is, *per se*, progressing from power to intelligence; and that this power and intelligence, of which the sample is so extraordinary, developed by mankind,

when considered as pervading all nature, is so far superior to electricity alone, that electricity may be considered, perhaps, as merely the mineral phase of it.

In a work just come out—"Evidence as to Man's place in Nature," by Mr. Huxley—occurs the following remark:—"The whole analogy of natural operations furnishes so complete and crushing an argument against the intervention of any but what are termed secondary causes, in the production of all the phenomena of the universe, that, in view of the intimate relations between man and the rest of the living world, and between the forces exerted by the latter and all other forces, I can see no excuse for doubting that all are co-ordinated terms of nature's great progression, from the formless to the formed, from the inorganic to the organic, from blind force to conscious intellect and will."

What are these secondary causes—that is, if they are secondary?

1. Something we call light, from the Sun; but which is not really light, but the cause of an electric action, by which we see, and therefore call it light; and this element, combining with the elements of the earth, causes those elements to produce the different phenomena.

2. Phosphorus—which I rank here, only because its remarkable effects in Life Intellect are more noticed than other elements. In the Academy of Sciences (*Moniteur*, November 12, 1861), Mr. G. Vill reports that, "if there is no supply of phosphorus in the soil, grasses and wheat die in a month;" and, in the Kensington Museum, we find that every man has about 1¾lb. of phosphorus in his body; and, in Kyan's work, which medical men have confirmed to me, it appears that where the brain contains only 1½ per cent., the man is imbecile; that 2 to 2½ per cent., constitute sound intellect; 3 per cent., eccentricity; and, beyond that quantity, the phosphoric action is so strong as to produce delirium or insanity. And, in the phenomena produced by the accumulation of the odylic fluid, which takes place by laying the hands on a table, and which phenomena commence by power, and change themselves into intellect *of the highest class*, the presence of a predominance of phosphorus is everywhere indicated.

3. Iodine, which perhaps ought to come after chlorine; but as mankind always investigate a thing tenfold when money is to be

got by it, M. Boinet, in his excellent work of 830 pages on iodine alone, shows that where, from geographical or other causes, iodine is deficient in the soil, plants, or air, deformity and imbecility abound.

4. Chlorine. Salt is so plentiful and cheap, that no one has been able to get anything by investigating how far intellect is produced or modified by it. We know, however, that without it the sea would probably become putrid, and we know that its presence modifies vegetable and animal productions.

Viewing the above, I think it not extravagant to surmise that every element of about the eighty we are acquainted with, has some share in the production of intellect—that intellect is an effect produced by the qualities or properties of elementary substances. There is much yet to be unravelled in this. I take an opium eater in his state minus opium,—miserable, dejected—his eye lustreless, his mind morbid and prostrate—I infuse through his system, by smoking opium, or laudanum, the vapours of the poppy; forthwith a new life is apparent in him, a thousand bright ideas pass through his mind. How is this? What quality of the poppy produces this intellectuality? If phosphorus, and iodine, and other elements influence intellectuality in man, and, by inference, in animals, why not in plants also?—they look happy enough in the sunshine. And, talking of vapours, as Baron Reichenbach says, page 218, "In the animal economy, night, sleep, and hunger, depress and diminish the odylic influence," and as this is most effectually demonstrated by Mary Jane, who, if the medium is cold, hungry, or tired, will not make her appearance, or hold conversation at all; so, a bottle of champagne, or a bowl of punch, will immediately increase and enliven the manifestations.

In the Spiritual Magazine, for April, 1863, Mr. Gardner, M.D., of Boston, has set the American spirit world in commotion, by stating that two of the spirit likenesses are the likeness of living persons. On this matter, I think that, supposing no fraud, as the likenesses are produced and caused by phosphoric emanations, or, as Mr. Kardic says, by a material vapour he calls the pér-esprit, that vapour can take any shape, being that of a person deceased, or living, just as well as it can take the shape of clothes, or of a guitar, or of a book, which is in one of the spirit photographs sent

me from America. And a curious incident happened at my house, which appears so singular that I would hesitate to relate it, but that the friends present then know it to be fact.

We had put under the table paper—and we had been playing at dominoes—and one lady had been talking about the spirit photographs, and one lady had been asking a "dear spirit" if it could give her its likeness.

When we took up the papers, upon one was sketched, in pencil, on the top, three ~~demons~~ ; and, underneath, a rough portrait, in pencil, of a gentleman with a hat on, about the size of a visiting card.

We know that this was done by the same unseen agency; in fact, the agency that can imagine and draw in any way, may, without shocking our credulity, produce any other description of drawing or photograph.

The most troublesome thing in investigating this matter, is to divine the sudden causes of the sentiments expressed; that such exist, there is (in my mind) no doubt, as there must exist some hidden cause for every extraordinary dream we have, as no idea can arise without a motive. The difference is, that, in dreams, the absurd, incongruous, and impossible, appear to take place; whereas, in this phenomenon, positive high sense, sound judgment, and very lively and witty remarks occur, not in any incongruous manner, but perfectly *apropos* to the subject under discussion or asked about.

I have no doubt that the effect, which we call domestication of animals—a term better understood than definable—is produced by the continuance, through successive races, of the odylic intelligent vapours evolved by man, and which are mesmerically absorbed by the animal, until, as in the case of the dog—man's constant friend and companion—an intelligence is developed, which, in all but speaking, is much akin to that of the man himself.

At first sight, it appears ridiculous that a vapour should have such effects; but when we look at the stringent and necessary regulations of quarantine on ships coming from ports where infectious fevers exist, and at the malaria of hospitals, and reflect that all these are vapours which exude from the human skin, and that these vapours attach themselves to clothing, and to the walls

of rooms, and remain active for a very considerable time, and that in many cases the disorders induced by these vapours result in the formation of animalculæ in the blood, the seeming absurdity of deducing such great results from such unseen causes is very much diminished.

In the *Times* of yesterday, April 3, is the following:—

"*The Courrier* of Lyons states, that in one of the private lunatic asylums, in the neighbourhood of that city, there are not less than forty persons confined, labouring under mental aberration caused by spiritualism."

And in the same paper, a month ago, the following appeared:—

"DEMONOSOPHY" IN FRANCE.—The lunatic asylums of France have of late received large additions to their inmates from the admission of numerous patients whose maladies have been the result of the new-fangled doctrines of spiritualism, including the usual accompaniments of table-turning, mediums, rappings, and intercourse with demons. An article in the *Presse* relates the cases that have occurred at Lyons, where mental alienation has been produced by demonosophy in its various forms. Individuals thus affected believe themselves in immediate communication with departed persons, hold conversations with them, and declare themselves impelled to extraordinary acts by the suggestions they receive from the spiritual world. It is not only folly of which they would be guilty, but crime, if in some instances they obeyed the orders that they fancy they have received. Moral means at present seem to have but little influence in these forms of disease, and the only end that has yet been gained by the investigations of physicians is the advice conveyed to parents and guardians of the necessity of preventing the weak of intellect and the susceptible from attending the meetings of the charlatans who are attempting to get up exhibitions of a character which is likely to mislead and pervert.

I have no doubt of this, and that if any superstitious person reads Allan Kardic's "Book of Mediums," and "Book Des

Esprit," through—and then satisfies himself, or herself, that a positive, independent, intelligent being is produced by a medium laying her hands on a table—which is a fact so easy of proof as not to be worth debating about—and then, taking for granted that this being is the soul of a departed person, and is either a bon esprit or mauvais esprit—of which good and bad spirits, according to Kardic's account, there are more always hovering about us than there are fleas in a bed at Greenwich—it is not surprising that people should go crazy; nor is there any cure, except through a scientific examination of the subject, because it consists, in my opinion, of two things: first, an actual fact, the production of an intelligent vapour from the human body; second, a popular and universal error, that this vapour is the soul of a deceased person. The steps leading to this belief are not violent or unnatural; for, suppose a room, and one medium, and one person. That person either asks a mental question, or writes a question the medium does not see, and receives a reply—the medium, then, does not, and cannot, have anything to do with it. The person asking the question may ask about some fact which he knows nothing about himself, and receive a correct and startling reply; therefore, the third invisible person is there; and, as they have not investigated the subject sufficiently to admit intellectuality in the vapour, they jump to the conclusion that it must be the soul of a deceased person, whereas there would be just as much reason in believing that every baby inherits the soul of a deceased person.

I should like to ask our friend who wrote the article headed "Demonosophy," what a demon is? what he, or she, is composed of? We know that man is a condensation of gases, which, in their separate state, occupy about the size of two dwelling-houses; and out of 154 lbs., if the man weighs that, the gases, oxygen, hydrogen, carbon, and nitrogen, weigh 150½ lbs., and that the other 3½ lbs., phosphorus, sulphur, &c., are most of them floating in the atmosphere. That being the case, when an author puzzles people's heads about demons, he ought at least to prove the existence of demons otherwise than in his own imagination.

That the odylic vapour, when so produced and concentrated, has telegraphic powers far beyond either the medium or the persons present, is certain, because it can tell what is passing in

the minds of those present, and can tell what is written on paper when no one present has seen it, and what a domino is with the face reversed, and most surprising things also. And I should not be surprised, supposing that a murder had been committed in a room, and the blood of the victim had saturated the floor, if the extreme sensibility of the so-produced vapour enabled it to make some communication alluding to it, for essences remain attached to bodies, as in cases of the clothes worn in contagious fevers, for a very long time; but all this may be accounted for by an investigation of the qualities of the vapours so eliminated.

In short, I believe that all the phenomena can be chemically and philosophically investigated and accounted for, without calling in the aid of the souls of deceased persons.

I shall now conclude this essay. To those who wish to study the subject, I recommend the perusal of Baron Reichenbach's "Researches on Magnetism," particularly also, because, although he at first sought for his sensitive persons among invalids, he afterwards found that the property was equally possessed by persons in the highest health; in fact, as far as my own experience goes, the quality of mediumship is dependent on a state of the highest health and strength of the individual possessing it.

The study of this phenomenon, must, I am convinced, ere long occupy the attention of many classes of mankind. That the power has been known through all ages, under the titles of witchcraft, sorcery, divination, sybils, demons, and devils, is certain; that it formed an important part of priestcraft in all ages of the world, is also certain. But in viewing the subject now, we must expunge all reasonings of the ancients, for the simple reason that this question is one intimately connected with the elements of which man is formed, and that the ancients were utterly and entirely ignorant of those elements. They knew nothing of oxygen, hydrogen, nitrogen, carbon, phosphorus, iodine, chlorine, and a host of other elements. They had some facts; they knew the powers of Mesmerism, but they could not analyse the causes—the consequence of which was that these phenomena were ascribed to angels, or devils, as suited best the pockets of the professors.

Leaving, therefore, the ancients alone, the moderns are not much better; for, in Paris (see p. 458 of Allan Kardic's work)

there is " La Société Parisienne des Etudes Spirites," with president, vice-president, three secretaries, and a treasurer, altogether devoted to talking to the spirits—and of which one rule is, that all questions addressed to the spirits must be through the president. These people have entered into this study by the door of superstition, and have jumped to a conclusion of souls of deceased persons, totally overlooking the elements, and their properties; and this is clear from Mr. Kardic's propositions at starting, that the body is grossière and matérielle, showing that he knows nothing about the human body, and then stating that these phenomena are souls enveloped in a material substance which he calls pér-esprit, but which he declares mankind hitherto knew nothing of the nature of.

Whenever anything under investigation has most salient and most startling inconsistencies and improbabilities, we have a right to look at them, and to look searchingly at everything connected with them, before we give our credence. Now here is a case.—In Bloomsbury live two honest, worthy female mediums, and any person may go there, and, for a trifle, have a séance, of which the stereotyped occurrences are that the souls of their deceased relatives, in whatever part of the world they may have died, are there to meet them, and to talk with them; not only that, but the souls of Napoleon and Washington were there disputing; and, if the table was large enough for thirty people to sit round, each of them might summon (provided he believed) three or four deceased persons' souls to talk to. I speak to facts, because, when my friend W. took me there, I was told that the spirit of an uncle and brother were there, and that certain raps came from them. This, even if it were true, is supremely ridiculous, and therefore we turn naturally to a more reasonable solution of the phenomena.

The philosopher will be astonished in contemplating in this phenomenon the correlation of Power and Intellect, convertible one into the other—Power ceasing while intellect is being evolved. Power and intention everywhere, through the whole solar and doubtless other systems.

The medical man will find a great field open to study in the mechanical and curative effects, not only of mesmerism, but of all medicines, inasmuch as every medicine, after taken, resolves

itself into what may be termed a vapour, permeating the fluids of the body. The causes of mental alienation, and probably the modes of cure, may result from the study. The superstitious devotee may have communications from every saint in the calendar, who he firmly believes in—while affectionate relatives may still continue to converse with those dear ones whom they have lost, and who will respond to their wishes by assuring them that they are continually near and ever watching over them.

Nothing can stop this movement and this investigation now. Poor mankind and womankind have been burnt, and drowned, and stoned to death, for 3,000 years by the priests, merely on account of a natural quality which all possess, but some more than others. It is very evident that this phenomenon, as well as mesmerism, was perfectly known in times of the remotest antiquity; for Moses (Lev. xx. 27) says, "A man also, or woman, that hath a familiar spirit, shall surely be put to death." And, up to a very short time ago, old women were burnt and drowned as witches. W. tells me, that over 30,000 were so burnt and drowned in a very short space of time.

All these poor people—these hundreds of thousands, from Moses's time downwards, were horribly murdered in cold blood.

Who were the murderers? Those who, for their own private interests, stifled the investigation of the phenomena and laws of nature.

The present state of the case is, that facts are daily accumulating of the existence of an agency, which will prove to be as real as magnetism; and the best plan for all those persons, whose minds are in doubt on the subject, and who have no opportunities of investigating it, is to suspend their judgment and belief, until recognised and influential scientific men have thoroughly investigated it. And I venture to predict that the health, welfare, and advancement in civilisation of the human race, will make more rapid strides by the knowledge of nature, developed by this phenomenon, than by any modern discovery whatever.

I cannot help, however, adding a circumstance I have long and silently watched, as proving the force of opinion in this phenomenon. When we began, I stated to one lady friend, that my particular reason for christening the new comer, Mary Jane, was, that I

might not enter on an error, even in nomenclature; and that they of course, were quite correct in addressing the invisible agency as dear spirit, good spirit, or other endearing names, which they accordingly adhered to, and which diffused a kind of solemn atmosphere through the whole room.

By degrees, however, they took courage and began to talk to Mary Jane, by name, until at last the greater part of their conversation is with her—in fact, they scold her sometimes, and get their answer. Not that their belief in the communion with dear relatives has ceased, as they often talk with them—but that they treat our Mary Jane as a lively mundane spirit, with whom to play cards or dominoes or get drawings from. Now, if I had been of a superstitious turn of mind, there is no doubt that, on the first appearance of an intellectual agency being present, I should have imagined some deceased relative, and addressed it as such, and received an affirmative answer, and from that time to this, gone on in the stereotyped track of spiritualism.

Tell a child that an appearance or thing is a ghost, and you create a ghost; that is, you do not create a real ghost in nature, but you create a ghost in that child's mind, which, perhaps, may never be eradicated.

As I began this Essay with an extract from a letter, I will conclude it in the same manner.

"London, May 1st, 1863.

"Dear ——

* * * * *

"I did not wish * * to be present when I read my manuscript, because * * * and because it destroys all those illusions * * it proves, in fact, that——

1. Man is a condensation of gases and elementary vapours.
2. These vapours are constantly exuding from the skin.
3. They charge (to use an electrical term,) certain things; viz.: The sensitive plant—and it droops. The human

body (as in mesmerism,)—and it becomes insensible to pain. A table—and——

4. When these vapours (which Reichenbach calls odylic,) emanate from certain persons, who appear to have phosphorus in excess in the system, they form a positively living, thinking, acting body of material vapour, able to move a heavy table, and to carry on a conversation, &c. &c. &c.
5. That the other persons sitting at the table affect the quality of the manifestations, although the Odylic vapours from them are not sufficiently strong to move the table, or act intelligently alone.
6. That we do not see the Odylic emanations from their fingers, has nothing to do with the question; for we can neither see heat nor electricity—and yet we admit the existence of both, from their effects.
7. Thus, if the medium knows nothing of music, and holds a guitar, the sounds given out will be discordant, or such as might be expected of a person knowing nothing of music; but, if a good performer sits at the table at the same time as the medium, the sounds will be harmonious; so, if a medium understands nothing of drawing, and paper and pencil be put under the table, scribbles will be produced; but, if an artist sits at the table, flowers or other artistical drawings will be produced; although, in neither case, could the artist produce the slightest movement of the table, or manifestation whatever, without the medium.
8. That this Odylic being thinks and feels exactly as the persons from whose bodies it emanates; that it possesses all the senses—seeing, hearing, smelling, tasting, feeling, and thinking;—that it makes up for the want of the muscular organs of speech, by either an electrical power of rapping, or by guiding the medium's hand, or by direct writing with pen or pencil.
9. That its power of sight is electrical, for it can see under a domino, or what is in the adjoining room—in short, where the human eye cannot.

10. That its power of hearing is also electrical or superhuman.
11. That it is highly sensitive to odours, delighting in those of flowers, and expressing repugnance of some.
12. That it can rap in two and probably more places simultaneously.
13. That it can carry on different conversations with different individuals at the same time.
14. That its conversations with different persons will be responsive to the affections, the sentiments, and the religious belief of each person it is talking with, although they are drawn from one common source—the Odylic vapour concentrated at, or with which the table is charged—and although those religious creeds are entirely at variance. And if asked for the name of the (presupposed) spirit, it will give the name either of the desired relative, or of some high authority (on religious matters) in the specific creed of the person making the enquiry.
15. That, from various concurrent testimony, it appears fully proved that this Odylic vapour possesses the power of taking the shape of hands, arms, dress, &c., and even of an entire person, dressed; and, such fact being certain, the statement that in America photographs of both dead and living persons have been obtained, ceases to be preposterous—but that the souls of those persons produced or had anything to do with those shapes, does not appear to be any more proved, than that if a good Turk received a message signed "Mahomet," it would be accepted as proof, either of the truth of the message, or that the deceased Mahomet had anything to do with it.
16. That, nevertheless, the high thought, philosophy, independence, conciseness, and deep reflection evinced by many of the answers and sentiments expressed by the Odylic fluid, point to its connection with a general thought atmosphere, as all-pervading as electricity, and which possibly is in itself, or is in intimate connection with, the principles of causation of the whole universe.

April 21*st*, 1863.

The chromo-lithographer tells me it will take fourteen days to lithograph Mary Jane's pictures, and that there are seven colours to be printed, one a-day. Well, reader, the originals of those pictures were made in the following manner:—

The ladies bought French note-paper in Regent Street, each according to her fancy, and I generally prepared some paper with photographic chemicals. All these papers were put under a four-feet rosewood table—sometimes one lady would put all her paper in a book, another would put it loose—sometimes it was put under the table, and a séance held at one or two o'clock for an hour—sometimes some papers were placed at the beginning of the evening séance, say at about half-past seven. At about half-past ten Mary Jane would say, "Look under the table." If asked before, she would reply "Not yet;" and when we took up the papers we found those drawings—sometimes two, sometimes six. There were no colours nor water, nor anything but the plain paper put under the table, and the parties engaged in the séance sat round as usual, and generally took tea, played at cards or dominoes, and talked with Mary Jane or, as they called it, "good spirits," during the whole time; and whenever the question assumes an important shape, as clear proofs shall be forthcoming as that the sun shines.

The book is printed, waiting for the plates, and consequently I am enabled to add a postscript. You have seen how much indebted I am to a most worthy and orthodox clergyman of the Church of England, for a graceful beginning of my book, though I very much doubt, when he said, "Please forward this to your friend, to whom, pray God, it may be of use," that he contemplated in what manner his letter would be useful to me.

I am going to place myself under an obligation to another person, to end my book—no less than Lord Palmerston; but I must make an anecdote of that. I seldom go through the debates on Church questions in the Commons—it is like looking over a game at chess, only interesting if a good player is making a move.

However, yesterday's *Times*, April 21, had the debate on the "Prisons Ministers' Bill," and I am going to give you two short extracts from the quantity spoken.

Mr. Disraeli said, "I believe that, in this age, when the elements of Government are daily diminishing, when the power of governing nations is every day weakening—"

No such thing, Mr. Disraeli, that is another of your specious fallacies. The power of governing nations in the way the Emperor of Russia governed the Poles, by delivering them over to an irresponsible police, and taking them out of their beds at twelve o'clock at night, to make soldiers or rather convicts of them—certainly is "daily diminishing," but if you will go back nine months, to the letters written to Paris by the French who came to the Exhibition, they are full of admiration at seeing a city of three millions, and not a soldier anywhere, and the police remarkable for their civility; and if you will look at the conduct of the half million of people in Lancashire, reduced, without any fault of theirs, to the greatest privations, and still conducting themselves in the most orderly and exemplary manner, you will at once (at least mentally) retract that observation.

However, that is a digression; scanning the paper, I saw Lord Palmerston said—and, though the subject may not be worth reading about, the manner in which Lord Palmerston treats it is always worth attention. In his Lordship's speech, I find precisely the answer I have to make to my friend the clergyman, and to all other arguments of the same stamp:—

"*I believe it is merely a question between sound sense and most respectable and honourable prejudices.*"

Allow me to ask, my Lord, did you not, out of delicacy, leave out the word "*profitable?*"

FINIS.

My work is complete. I could not desire a better termination; but as the lithographing of Mary Jane's plates will occupy a fortnight, and are being copied by one of the first artists in London, and the printer tells me I may add a few sheets more; and also, Reader, as the subject of the odylic vapour is nearly as new to me as to you, I shall continue such observations as may occur to me up to the time the plates are ready; and which please consider as a sort of second edition.

I have recurred again and again to the above expression of Lord Palmerston, in admiration of the extreme delicacy of it; for really and truly, the expression itself is erroneous; it is like the nice sugar a mother mixes with castor-oil for her child. Let us examine it. How can a prejudice be "most respectable and honourable?" A man may be most respectable and honourable; but a prejudice—apart from the man—can be neither. To prejudge, Johnson says, is "to judge beforehand; generally to condemn beforehand," and this can be in no case highly respectable or honourable. Of course, his lordship knew that perfectly well when he made use of the expression, and it was only my stupidity that prevented me from seeing through it at once, and appreciating the extreme tact and delicacy of it.

To return to our Mary Jane. I asked a lady, who knows more about it practically than any or most persons, how the Intelligence was found out. She said that several sisters lived together in America, and that raps were constantly being heard in the room, at which they were not alarmed, as no harm came of them, but laughingly called them spirits; and one day one of the sisters said, "Well, if you are spirits, tell me how old I am?" Sixteen raps were heard, which was her age.

I mentioned that Light (as we call it) is not Light (as we understand it) when it leaves the sun, but electric matter, which, combining with the elements of the earth, produces light and heat—just as effervescing powders are mixed. This theory is fully confirmed in Mr. Glaisher's balloon ascent last Saturday, April 18; for you see in his account, that a sensitive photographic paper, exposed to the full rays of the sun at three miles height from the earth did not colour in half an hour so much as it did in the grounds of the Royal Observatory in one minute. Light and heat, therefore, are the products of the combination of solar matter with the elements of the earth.

I have been asked whether I thought that the production of odylic vapour, by continued sitting at a table, was injurious to the health. I think not in the least—in fact, it seems to favour *embonpoint*, when the medium is perfectly free from the prejudice that the manifestations are caused by the spirits of departed persons; but I can readily believe that the minds of susceptible persons may be worked up to a very hurtful state of irritation, by the belief that the phenomena are produced by the souls of departed persons, and by demons, and all sorts of hobgoblins, as laid down in Mr. Kardic's works.

I think then, when the scientific world has done its duty, and investigated the subject as it does electricity or any new physical discovery, all public sensation on the subject will cease. It is, no doubt, highly and deeply interesting for a man or woman to converse with his or her deceased husband or wife, but when that "most respectable and honourable prejudice," to use his lordship's expression, is scientifically done away with; and it is proved to have no more *bonâ fide* reality than a dream, and that these spirits are but mental photographs, the sensation will take quite a different channel.

The conversion of power into intellect is very remarkable. While the Odylic vapour moves the table, it does not converse, and *vice versa*—so, in the human being, power and motion begin long before birth, while intellect follows long after; so in the man,

youth is distinguished by its muscular activity, which becomes converted by age into mental activity; so, in the progress of the human race, the muscular powers are less used and consequently less developed, while the thought power becomes from generation to generation more developed, and more capable of profiting by the ever-accumulating discoveries of science.

The being produced by the Odylic vapour seems to me to have a great affinity for what we call conscience; in fact, the expressions we use admit tacitly the existence of a duplicat person. What means the expression, "My conscience will not allow me to do so and so?" "His conscience told him he was wrong?" "The still small voice of conscience?" And as each different religion assumes full as much conscientiousness as any other, so the Odylic vapour accommodates itself in its responses to every "respectable and honourable prejudice."

In ordinary electrical processes we have three actions:—1, decomposition; 2, composition; 3, elimination; sulphuric acid —*i.e.*, sulphur and oxygen—zinc, and copper. The zinc is decomposed, sulphate of zinc is formed, electricity is eliminated, simple electricity. In the human body we have equally metals—calcium, sodium, iron, potassium; and in breathing we furnish the oxygen. The metals contained in the food we eat are decomposed, new metallic composite deposits are formed, and electricity is eliminated. But then we have besides a quantity of organic substances, carbon, phosphorus, &c., in the body, which are equally undergoing decomposition, recomposition, and elimination, and it is from these organic substances that the odylic phenomena emanate.

The simplest way of studying the subject, is to let the medium sit alone at the table with a sheet of zinc on it. Two distinct motions are then apparent—the one circular and the other direct. The circular one is from left to right; the direct one is towards the medium, as though it were simple metallic attraction.

The most noticeable facts in the case are—the large quantity of phosphorus in every human body—1¾ lb.; the fact that we imbibe phosphorus in each bit of animal and vegetable food we eat; that the lower the animal kingdom is in intellect or instinct, the less phosphorus their bodies contain; and that the odylic emanations and intelligent manifestations are generally and most probably always accompanied by phosphorus; and that chlorine, which we are always eating in salt, being a sister element to iodine, is full as likely as iodine to have a part in the development of intellect.

From a book, "Britton and Richmond; a Discussion on Ancient and Modern Spiritualism," I give a few extracts,—(Title Page):—

"Whosoever is afraid of submitting any question, civil or religious, to the test of free discussion, is more in love with his own opinion than with truth."—BISHOP WATSON.

"Because a certain set of facts are not understood, is no reason for believing that they are caused by departed spirits."

"The Church will not 'favour my views' on many points, I am sure, when they understand me."—B. W. RICHMOND.

"I was educated in the belief that spirits could visit this earth. I do not now believe it.—THE SAME.

"That persons in sound health may be impressible is not denied; but mediums as a class are delicately organised."

On this subject I have talked much with my friend Dr. B. Human beings are of all grades of organisation—every disorder, consumption, gout, and the thousand other complaints are the result of, or aided by, peculiar organisation. The female of all animals, as well as man, is so constituted for the purposes of gestation and lactation as to eliminate more liquids and probably consequently more vapours—that hence more women are mediums than men. That old women, from their sedentary habits, probably secreted more phosphorus, or at least eliminated it in confined rooms, where it produced those effects which we witness, and so becoming conscious of a power which they understood nothing

of the nature of, they used it to get a livelihood, and thus poor things, from Moses's time downwards, got burnt as witches; and there is no doubt, that when they saw the extraordinary phenomena they could produce, and that the church, and the magistrates, and the judges, and the mob, all declared that they were witches and possessed by evil spirits, that the poor things really believed it—the wrong persons were burned, in my opinion.

There are many anecdotes in this book "Britton and Richmond" exemplifying the enormous force and projectile power of the Odylic vapour, particularly in cases of supreme agony of the body; but from what I have witnessed—and taking into consideration the powers of electricity, as exemplified in the electric telegraph, I do not see sufficient reason for rejecting them as fabulous. I heard the other day, that the means are discovered of transmitting telegrams without wires at all—and if so, why not the Odylic force —which seems to be animalised electricity.

PHOSPHORUS.—I have given reliable quotations that phosphorus is a *sine qua non* to the life of plants, and that the quantity of it in the brain influences the intelligence of man; but I omitted a highly valuable detail, which is in the Formulaire Magistrat of A. Bouchardat, a Member of the Académie Impériale de Médecine at Paris. Under the head of Phosphorus, after stating that in excessive doses it is a violent poison, he states:—

"On trouve dans les auteurs des faits très remarquables des malades sauvés d'une mort imminente par l'emploi du Phosphore. Aucun agent ne saurait lui être comparé pour l'énergie et la rapidité de son action pour ranimer les forces vives de l'économie animale défaillante."

Medical men can probably give the world the best solution of this great mystery. They can find easily subjects in whom Phosphorus is organically in excess, and would be able to study the effects of a diet increasing the quantity. My observations lead me to conclude that there are two states of body which eliminate Phosphorus; the one that of the highest possible health of the subject; the other, that of a disordered action and delicate health.

While the lithographer is at work I am getting the opinions of friends who have witnessed the experiments and heard the manuscript read. One friend, B——, just the man Lord P—— pointed to when he talked of most respectable and honorable prejudices—hopes I have suppressed "the origin of the Jewish religion." To him I replied that, right or wrong, it was printed. Another friend, W——, writes: "I do not think Mary Jane will do in your title; it is all very well among your friends, who know what Mary Jane means; but to the public it will be unmeaning, and perhaps by some be thought childish."

To him I have replied that a word is but a sound, connected by habit with a thought—and Mary Jane is just as good as the "Pickwick Papers," or "David Copperfield," or the "Swan with two Necks," or the "Magpie and Stump"—and the simpler it is the better.

I must return again to our Mary Jane. I write now for the guidance of those who study the phenomenon—hitherto all the manifestations have seemed to accompany the continued flow and presence of the Odylic vapour—it is true that Mary Jane has, at various times, promised to visit the ladies present at their own houses, and to make her presence known, but these promises had never been fulfilled; at least, to the knowledge of the parties. However, the following occurred:—On Sunday last, we were saying that, now that our drawing medium was gone to Paris, we could get no more crayon drawings—when my wife said, "Mary Jane, will you make for me a coloured crayon drawing?" "Yes." "For certain?" "Yes." "Will you give it me to-day? "No." To-morrow? "No." On Tuesday? "Yes." Can I depend on it? "Yes." We speculated occasionally as to whether she would fulfil her promise. Tuesday evening, at half-past nine, Mary Jane, by the alphabet, indicated to me a drawer upstairs, and there I found a coloured crayon drawing. Now, it is only by looking at similar events that we can realise this phenomenon—that is, a first recollection, then work done in the absence of the medium. Several occurrences of the same nature occur in the American narratives, but

they are all founded on the belief of spirits of deceased persons; and, of course, if that theory be true, the occurrence is at once accounted for. But the question is, how to account for it on the principle of Odylic vapour. I believe it is the Odylic vapour which has been attached to seeds found in the case of a mummy, which, after 3,000 years, makes that seed germinate. To what is it then attached, with all its attributes of design and colouring, in the case of a picture? Does it stay in rooms, active and alive, like the epidemic of the small pox or other disorders? In many of our séances, the cards and paper were put under the table in the morning, and a short séance held, and the ladies went home to dinner, and returned to the evening séance; but we never had any evidence as to whether the morning séance was of any use, except as to the conversational powers of Mary Jane; nor have we any idea of the time actually occupied in making the pictures. I can give you no further explanation than the facts, but as the manifestations and motions of the table, and conversations are reducible to the same rules in the various séances—I have been present at different houses—I conclude that persons studying the phenomena will find analagous events occur. Perhaps the same properties of Odylic vapour may hereafter account for toads being found alive embedded in rock and coal.

Those who take an interest in the subject must excuse any errors I may make, and even repetitions; and will please to suppose that I am endeavouring to furnish those who have not the opportunity I have of studying the phenomena with facts on which they may draw conclusions.

With this short apology I preface a course of argument. Let any lady go to the South Kensington Museum and see the jar of phosphorus, 1¾lb., being part of a man weighing 154lb.; and as females have more than men, she will see that she has 2lb. of phosphorus in her body, daily being added to and eliminated—enough to make 300 boxes of lucifers—in fact, that she is a veritable glow-worm. That we do not see it always, is only because our eyes are made to act by visual and not chemical rays; but it is the chemical rays which make a photograph. If our eyes were so sensitive as to be acted on by the chemical rays, we should be blinded by excess of light.

I leave out in the present argument the mention of the other

substances composing the Odylic vapour. The blood, however, is full of it; and by its action we live, which is plainly proved by the fact that bleeding brings on faintness and unconsciousness.

I want now to prove the fact that this Odylic fluid can act in the human body, but separately from the brain intelligence. The French lady I have before mentioned was the whole evening playing waltzes and quadrilles to a party of young people; there was no one else to play; and, though tired, she wished to oblige them. I sat by her, and we entered into earnest conversation—her mind was entirely occupied by the conversation, but the fingers went on playing the tunes. I take it this was the Odylic vapour acting separately from the brain. In fact, is it not a matter of daily occurrence that the action of the hands is continued in an intelligent manner in sewing, knitting, &c., without participation of the brain? I have read that clergymen have got up in the middle of the night, and written good and sensible sermons, and then returned to bed, having been asleep the whole time. These and a thousand other circumstances prove the action of the Odylic fluid in the body, but separately from the main intelligence.

I have heard a composer, who had composed several favourite operas, play for an hour and a half on a most exquisite piano of his own, a present from Paris. The music he played was almost superhuman—at times in torrents. I asked if it was from any of his works. No, all *fantasia*. I apprehend that the continued habit of transferring intelligence from the mind to the fingers had something to do with this.

I think I have thus established the action of two intellects in the body at the same time. Call it Mary Jane who played the piano, while the French lady talked with me.

That this secondary intelligence which so played the piano, while the lady's thoughts were occupied in conversation, should be able to exist and act after it has exuded from the body, is, I allow, very wonderful, and to those who have not witnessed it quite incredible; but it is a fact, and a fact producible and to be seen or investigated at any time.

And another fact is, that habit is, if possible, more influential in this than in anything else connected with the human body; so that, by-and-bye, the habit being encouraged, the Odylic vapours

which are being eliminated have at all times the qualities of intelligence, and the wish to talk and express its sentiments as a distinct person; and, as, from the fact of husband and wife sleeping together, there is a mesmeric or Odylic chain between them, the habit and intelligence are much facilitated by it, until at last, if encouraged, you have at all times an intelligent third person with you, and the more and the oftener you talk with it, the stronger it becomes, exactly as professional singers or dancers acquire their extraordinary talents by continued exercise. So, on the other hand, if no notice is taken of it, no conversation entered on, and no notice taken of any of the phenomena, the manifestations will gradually diminish and perhaps cease altogether; but whether or no the Odylic vapour so continuously issuing from the human body will continue to have the properties of intelligence, is what I have not evidence enough to give a valid opinion on.

As to the very, very extraordinary occurrences related in Spiritual Books—I do not think they are to be taken into account in the primary investigation of this matter. I account for them in this way. In the human species there occur, from time to time, examples of persons who have qualities developed far beyond the average. There is Blondin and Leotard—there are professional singers and musicians—there are calculating boys who at eight or nine years old solve most abstruse arithmetical questions—there occur men whose strength is twice or thrice that of ordinary men—there are persons, as Reichenbach has proved, whose eyesight is so chemical as to see the whole human body, as well as magnets and crystals, glowing with odylic light. We may conclude, therefore, that the very extraordinary manifestations in this matter are owing to peculiar organisations.

I repeat, however, from many conclusive observations, which I do not detail, the most positive assurance that none of the phenomena I have witnessed are in any way traceable to the souls of deceased persons, and that such belief is a complete illusion.

It is probably in a medical view that the greatest *cui bono* of this subject lies.

Given. 1st, That the emanations from mankind are living and thinking vapours, and it follows that the emanations from persons

having contagious diseases are also living animalculæ or their germs, just as well as that the animalculæ can exist in the blood.

Given. 2nd, That phosphorus is the principal agent of vitality in these vapours and germs.

Given. 3rd, That a certain degree of heat is necessary for the development, and that a greater degree of heat assists enormously the development of these vital properties, and we have the key to all contagious disorders and epidemics.

We have also the key to the question, "Why in hot countries contagious disorders disappear in the cold season of the year?"

We see also why meat becomes putrid and unwholesome. Phosphorus is developed, and, from its highly vital quality, produces animalculæ. But we see also the antidote. We salt the meat—that is, we apply chlorine, which neutralises the phosphorus, and the meat keeps.

So, to get rid of effluvia, we apply chlorine by means of chloride of lime. Following this argument, we see how the sea is fitted for its innumerable habitants. We have the vital principle phosphorus (with other elements) and the conservative principle, chlorine, or salt. If there is too much salt, as in the Dead Sea, fishes cannot live; if too little or none, other descriptions of animal or vegetable life take place.

We come also at the real meaning of the word antiseptic. Everybody comprehends that word. Johnson says: "Medicine to prevent putrefaction." In accepting this, we comprehend a fact; but it does not explain the modus—the modus really is a something; which, combining chemically with something else, prevents organic changes. Now, there is so good an elucidation of this in Boinet's Iodotherapie (only 834 pages, reader) that I cannot refrain from giving it you. The question was to test the antiseptic powers of iodine, and accordingly (page 612) four substances were chosen—gluten, milk, blood, and albumen, and having put them in duplicate recipients, the one set were treated with one one-hundredth part of iodine, and the other set exposed without any addition.

Leaving you to examine the details of the gradual changes yourself, I will only detail the end—*in a month.*

The iodised gluten was membranous—the smell of iodine becoming weaker.

The non-iodised gluten was become like soup, with a smell of rotten cheese.

The iodised milk had not curdled, and had a sweet smell resembling almonds.

The non-iodised milk was covered with mouldiness, and had a sharp and putrid smell.

The iodised blood was not changed.

The non-iodised blood had the smell of putrid meat.

The iodised albumen was not changed.

The non-iodised had a sulphurous smell.

Now the iodine—to preserve these substances sweet for a month—did something—that is, it combined with something—and prevented that something from generating the putrid state; and I take it that the something with which the iodine combined was phosphorus.

And if the iodine, mixed with the substances themselves, so combined with the phosphorus, and prevented putrefaction, it is equally reasonable that the vapours of iodine would combine with the phosphorus of malaria, and render it innocuous.

The treatment of insanity will, I think, be influenced by the knowledge of this phenomenon. First we have Kyan, "Elements of Light," p. 109, that when there is 4 or 4½ per cent. of phosphorus in the brain, there is a state of complete insanity. We next prove, in this phenomenon, that excess of phosphorus makes this dual being apparent—and I have reason to think that this dual being, where vividly produced, is always active, and influencing the person, although they may never have heard of table-turning or spirit-rapping. We then see, that when an insane person is kept in a close room, the whole room becomes permeated with these odylic phosphoric vapours, and it is highly probable that the action of these vapours, reflecting the disordered state of the mind, confirm the impression that the invalid is this or that person, just in the same way as people who converse by means of rapping believe that it is their deceased relations they are talking to. The abstraction of phos-

be able to make a communication except by means of a third person, that they should have been so hovering about them for years, making the journey from India to Australia with them, never having given a sign of existence till the parties went by chance to an obscure house in Bloomsbury. Having remained (as would be the case with my uncle) forty years without giving any sign of existence— then, and then only, to be present, and say, 'Fear God, and lead a holy life.' and then never giving any further sign— appears to me to be utterly unreasonable, in the presence of another agency, which accounts satisfactorily, by the agency of chemical elements, with the whole phenomena."

Human nature believes in the supernatural, because the supernatural is impressed upon it before the reasoning powers are sufficiently formed to act; and on this subject I thank *The Times* for a paragraph in to-day's paper, April 27, which bears a great deal on many of my reasonings, and which, coming from *The Times*, has greater weight than from me.

"Among the poor and ignorant, such prejudices are very hard to get rid of. Uninstructed persons derive nearly all their principles from their friends and elders. They are seldom brought under the influence of modern reason, and traditions are handed down from generation to generation. It is of no use appealing to their common sense. All men, instructed and uninstructed, are very tolerant of absurdities which do not immediately affect the immediate necessities of life. There are few delusions which man cannot be brought to believe if they injure neither his stomach nor his purse."

Lord Palmerston compresses the same idea in fewer words— "*I believe it is merely a question between sound sense and most respectable and honorable prejudices.*"

Of this I feel certain—that, whenever this subject is taken up by unprejudiced scientific chemists and medical men, with a medium equally unprejudiced, they may go on for months, as I have, holding conversations, whenever they like, with a third invisible being; but that being will never give them the slightest hint of its being the spirit of any person at all. Let, however,

phorus from the system, and out-door occupations, and excessive ventilation, would seem to be indicated.

The *modus operandi* of these phenomena is very puzzling. A table is moved violently, things carried about, a man raised up to the ceiling, and it is that which prevents belief, except by those persons who see the phenomena too often to doubt. What we want, is the law of nature by which it is done. Examining that, we have one law of nature equally wonderful, if we had never seen it. An ignorant savage has been accustomed to see everything fall to the ground. Let him for the first time see a magnet lift a piece of iron, he will be puzzled, till it is explained that the power of attraction of the magnet is greater than the power of attraction of the earth. So in this case, the power of this vapour overcomes the earth's power of attraction. One of the first instances I saw of this power, was that a lady at the table said, "Good spirit, please to make the table heavy." She then told me to lift that side of the table, and it was excessively heavy. "Now make it light," she said, and I lifted it like a feather; this resolves the phenomena into a law of nature, and there ends reasoning. Quicksilver has the property or quality of being liquid at ordinary temperatures; it is a law of nature, I never heard any reason given for it. The same may be said of water becoming ice; it is a fact, or we may state it in this way. Water quicksilver, and iron are naturally solid, but the addition of different degrees of caloric render them all liquid. So it may be a law of nature that the emanations from organic bodies may possess the power of overcoming the principle of attraction.

As to the spirits of deceased persons having anything to do with the matter, to me it could only be reconcilable to reason, if several postulata were answered, viz.—

"What are they composed of?

"How are they maintained?"

"Why is their agency confined to the presence of a few individuals?"

"If continually present with their friends, why must those friends go to another house to talk with them?"

"That a husband's, sister's, or wife's soul should be incessantly, day and night, hovering over and about their relative, and never

another person, firmly believing in the spiritual, sit down at the same table, and ask for a communication from one of their deceased friends; and it will be given to them, and very possibly with extraordinary long-forgotten circumstances. Such things occur in dreams; and the nature and causes of dreams are in some measure connected with this subject; but this is no more satisfactory proof than a dream is of the actual presence of the person dreamt of—in fact, I believe that the immaterial spirits of deceased persons have no more to do with it than they have with being fathers and mothers.

Discarding, then, all notions of mankind on this subject, which tradition has handed down, from the time of Egyptian Priests with their magicians and sorcerers, who performed before Pharaoh, all through what is called the dark ages, when the priesthood settled all questions by fire and faggot, or the still more ingenious question whether a human being was a witch, according to her floating or sinking in water, down to the present professors of the science, who are seeking to found a religion on the basis of innumerable spirits, good, bad, and indifferent, which fill the whole atmosphere about us, and are always playing all sorts of pranks (see Kardic and the American books)—let us see what could be proved to-day to the satisfaction of the most sceptical chemist.

1. The possession and action of all the senses, including thought, can, may, and does exist in a vapour.

2. This vapour combines the powers of force and intelligence.

3. It is formed by the action of the emanations of the sun on the elements of the earth.

4. It emanates from all organic creation, vegetable and animal.

5. It is the cause of what is called spontaneous generation.

6. It is the formative vapour.

7. As its action depends on immutable qualities, it is to day as it was from, and will be to, all eternity.

There remains to give some explanation of the causes of one of the phenomena of these manifestations; that is, their excessive moral difference. In some there are the sentiments of the

highest morality, such as would be expected from the greatest philosophers, while in others, according to Mr. Kardic's and some American books, deceit, mischief, and violence are predominantly manifested; and these manifestations have given a colour to the doctrine of all these qualities as belonging to good and evil spirits. I apprehend, that, instead of going to the supposed spirit-world to seek a solution, we shall get it more satisfactorily from Gall and Spurzheim—from phrenology—and that the intellectual quality of the emanations will correspond either with the natural phrenologically developed propensities of the party, or with the temper the person may be in at the time of the emanations. Thus, the medium being angry, the communications will be violent, and *vice versa;* or the presence of another person at the table will influence them. I think the phrenology of the parties and their frame of mind will give the clue to all these different manifestations; and it may also be remarked that very often persons have natural organic tendencies which education has repressed, but which possibly might become apparent in the odylic vapour.

In the present case, ladies of talent met, and the communications were lively, affectionate, and witty, and flowers were drawn; but supposing that the parties at the table had been those whom *Punch* has called Sir Somebody's Pet Lambs, *i.e.*, ticket-of-leave men and garotters, the manifestations would have been correspondent, and ten to one the pictures drawn would have been bull-dogs.

More than that, the most highly educated and amiable women having, from their very earliest infancy had, at least weekly, that very wicked person (if he is one), the devil, so firmly and continuously impressed on their minds, by those authorities which they are brought up to respect, and have unlimited confidence in, and give implicit credence to, that they are prepared on principle to admit, as a natural sequence, that anything they cannot account for is done or caused by that gentleman or his agents; and as the *Times* truly says, "It is no use appealing to their common sense;" and in fact, in a great number of cases, their interests and their standing in society oblige them to profess to believe what their common sense revolts at.

The question has often occurred to me, how to prove the

existence of these phenomena to the most incredulous person, at any time. The difficulties in the way were these:—As to the table moving when hands are placed on it; that is no absolute proof—it may be counterfeited; and though persons in the habit of seeing the manifestations will be convinced, still those who have not seen them will not be. In fact, though I saw them twice, I could not have given a certificate as to the impossibility of deceit. It is a rare occurrence, though it does happen, that tables and chairs move alone; it cannot be commanded at any time. So, also, about the intellectual part of the phenomenon. Flowers drawn or writings made under the table, are not always commandable at will, and may also be counterfeited. Even the ordinary mode of conversation might be counterfeited; it is. The alphabet is read slowly over aloud, and three raps announce the letters that are to be written down. Now, it is evident that the medium might rap three times at each letter which composed a sentence; so that deceit is possible. But there is one method by which deceit is impossible, and by which the truth of the phenomenon can be at all times proved; it is this:—The medium sits at a long table, the party to be convinced at the other end—any table, in any room, in any house, is all the same. In front of the person to be convinced is a screen, so that the medium cannot see him or her. The person to be convinced writes an alphabet, as small as he chooses, on a sheet of paper. The medium can neither see his hands nor the paper. He then points with a pencil or pen, without speaking, to each letter of the alphabet in succession. Three raps are heard at certain letters. These letters will form an intelligent sentence. Now, whence comes that intelligence? Not from the medium; for she cannot know what letters are pointed to; she does not see the pen nor alphabet. Of course, not from the person who wishes to examine the phenomenon; and, as those two are the only two parties who need be present, the fact of the raps and the intelligence proceeding from a third invisible being is most mathematically proved.

As I said to a friend who tried it three evenings ago—"The Medium could not know what letters you were pointing to, and you could not know what sentence the letters you were writing

down would compose, and yet you have a highly intelligent remark—whence came that intelligence—he replied 'I do not know.'" In order that the Medium should practise any deceit, she must be able to know, without seeing either hand or paper, to which letter of the alphabet the pen or pencil was pointing which is impossible; besides, in very many cases it is not needful to go over the alphabet as in a sentence, where the letter y plainly indicates you—it is sufficient to point rapidly to the letters o and u, to receive assenting raps, and if the wrong letter is pointed to, a dissenting rap will be heard, and the alphabet must be again gone over. Those persons who have often witnessed the phenomena will find these explanations superfluous, but I give them in order that persons who have never seen them, and very naturally disbelieve, may see that such tests have been used, that they themselves, if they witnessed them, could not avoid being convinced of an agency apart from the persons present, as much apart as the steam that moved all the different machinery at the International Exhibition was apart from the water that it issued from.

We see power, apparently without intellect, in the action of electricity; we see power with intellect in the vegetable creation—the plant forces its roots down into the earth and its branches upwards; we see power, instinct, and intellect in animals and man. We accept these facts as laws of nature to which, from childhood, we are accustomed; and the premium of 4,000 francs which the French *Academie des Sciences* offers for the best treatise on the human intellect, shows how very much farther information is desired on the subject: but a new phase and perfectly new question opens now to our inquiries—that is, the nature and extent of intellect embodied in a vapour, which combines at once power and intellect. The astronomer watches sun, and planets, and comets, moving in appointed orbits, each keeping so undeviatingly in its course, that he can calculate their hereafter locality for centuries to come. All this is proof of power united to intellect. On our earth we can appreciate so infinite an intelligence that, with all our microscopes and all our

chemicals, the more we discover, the greater the field of the unknown opens before us, and leads to the conclusion that through all the realms of space an invisible intellect is unceasingly acting.

A friend who has witnessed these conversational phenomena, and to whom I read over these last fifty pages of manuscript, has made the following very apposite remark:—"Admitting the existence of a vapour which is a reflex of the medium and of the persons present at the séance; admitting also that that vapour has telegraphic qualities in addition to thought—and we can account for a great deal—a witty remark, a highly moral sentence, may all come within the faculties of the persons present; but you produce here pictures which are totally beyond the art of any of the persons present at the séances to have produced. How do you account for this?"

The remark is excellent, for it points to a superior, or at least distinct, power. We that were present at the séances, have not the slightest idea how the pictures were produced, any more than the reader would have if he locked a blank sheet of paper in a box over-night and found a drawing on it the next morning. It is a subject requiring great consideration; but it does not follow that we are to jump into the absurd or unscientific in discussing it. I will give the best elucidation I can.

Man is evidently a dual being, as exemplified in the two distinct actions which are carried on in his body. We will call No. 1, the action which commences with his being, and which never ceases till his death. We will call No. 2, the waking action, the action of self-consciousness.

Now No. 1, although it is the life action, is still highly intelligent. Not only are all the bodily functions carried on, each in its due season, but there is an intelligent action accompanying it—the child cries for food—or if it is hurt; besides, the actual duality of the two existences is proved by the fact that a given quantity of chloroform, though it entirely suspends the action of No. 2, does not at all interfere with the action of No. 1. The perfect

duality of the two existences is fully proved by the action of chloroform in childbirth, as it could not be used, if its action on life No. 1, was in the slightest degree analagous to its action on life No. 2.

Now it is pretty clear that the mediumistic phenomenon is a quality of life No. 1, for all the actions appertaining to life No. 2, or waking life, are actions dependent on the will. We can think, talk, and move, however ill we may be (within limits), but the mediumistic action is entirely and completely out of the control of the medium. In some states of health, she can neither get a table to move, nor any other sign to be given; and when she has the power, she is utterly unconscious both of any exertion of it, and quite unable to control any of the manifestations of motion or intellect which may take place. She knows from experience that, when in health, by putting her hand on a table, she can produce certain phenomena; but in all other respects she is as unconscious as we all are of insensible perspiration; and there is no doubt that the same vapour is being continually eliminated from her, whether by sitting at a table it is rendered apparent, or, by not being concentrated, it flows off without manifestation.

We may, therefore, separate this phenomenon from the waking life; and, therefore, the reasoning that this or that could not have been done by the person in the waking state, does not entirely and strictly apply to the action of the odylic vapour.

The clairvoyant action comes strictly under the same category being the unconscious production of intellect beyond the ordinary human powers. The difference is that, in the clairvoyante, the separate action takes place within the body; and, in the medium, externally to it.

Sleep-walking comes under the same category.

There is an instance in "Richmond and Britton" much to the point here: "A dull lad at school produced excellent themes; but when asked about them, knew nothing. He said that he found them in his room in the morning. The master watched, and saw him get out of bed in his sleep and write—the themes were far superior to what he could have written in his waking state.

It appears to me that the word medium does not give an entirely clear view of the faculty. If we lay down as the axiom, that every person produces a manifestation apart from his conscious waking faculties, we shall obtain a better view of the subject, for unquestionably the intellectual manifestations are influenced by the minds of the persons sitting at the table, although those persons could not produce any motion of the table. Mediumship may therefore be divided under two heads, mental and corporeal, just as, in mankind, one individual may possess enormous power of mind with a very feeble body—so another may have the strength of Hercules, with but average mental power. It is the peculiar quality of producing the odylic vapour in quantity, that produces the effects of tilting, rapping, and moving things; but if two persons are in the habit of sitting in séance, the one eliminating the motive power which makes mediumship apparent, and the other without any of that motive power, still the emanations from the person without the motive power will affect the communications most decidedly—just as when masons and carpenters build a house, the architect who made the plan, though he has neither touched brick or wood, has still had a great deal to do with it.

If we consider it proved that the action of the odylic vapour, forcible and mental, does not emanate entirely from the will force, but is an emanation from that supreme intelligence which developes all the powers, bodily and mental, of the human being, from the size of a speck, invisible without a microscope, up to the full-grown being, whose intellect searches deeply into the nature of all elements of time, of space, and of eternity; we tread on unknown ground, but it does not in the slightest degree follow that we have any need to lay aside the axiom I have contended for throughout this work —namely, that every thing or effect that we are witnesses of, is the result of elements, and the qualities or properties inseparably attached to them. There is an Intelligence at work in the universe, whose mental productions possess that perfection, at once, to which the educated intellect of mankind only attains by long practice. That intelligence is called instinct. It is perfect intelligence without reasoning. The comb of the bee is an

instance. It is perfection of design and mathematical precision, without the aid of reasoning faculties; so, in these manifestations, we have exquisite designs of all sorts, without the aid of the educated reasoning faculties of the medium. This is the only reasonable channel open to us for the investigation of these phenomena.

I shall conclude this book by a narrative of what happened yesterday, May 16: A lady, who has been present at the séances, called to pass the day. It was about one o'clock. This lady had been acquainted with Baron Guldenstubbe, the author of "La Réalité des Esprits."

In conversation with my wife in the drawing-room, on the subject of the phenomena, she said, "Mr. S——— says it is a vapour; let us try it." They took some sheets of note paper and held it between the palms of their hands, and then put them into a tight-fitting drawer, in an antique table in the drawing-room. They left the room, and came into the garden, and amused themselves till dinner. At dinner, in the parlour below, the lady said, "Mary Jane, have you drawn a picture for me?" "Yes." "Shall I fetch it?" "Yes." She went upstairs to the drawer, and found two flowers drawn in crayon colours.

I have a great desire, before I close, to take leave of our American friends. Gentlemen of the North, you long and are fighting for the Union—you will have it—not exactly as you think—but you and the South will be both governed by the same absolute monarch who governs Europe, and is fast annexing Asia—

KING NATIONAL DEBT.

The first thing he will do will be to alter your form of government—at present it is a harlequin government. When your President is dressed in black, you are the freest nation on earth, but if he puts on the uniform of General-in-Chief, you are more slaves in person and purse than the poor nigger, whose condition you pretend to wish to ameliorate—for it's all pretence. If there was any reality in it, you would begin by elevating the Negroes among you as much as possible in the social scale.

Now, a government of that sort, and King National Debt, are incompatible; and, as you have elected him King, and crowned him, and handed over to him all your property, he will model your government—possibly he may instal a monarchy upon the approved principles of England and Rome, as I had the honour to explain to one of His Holiness's Ministers of State, rather to his surprise. "Now," said I, "with us, Queen Victoria is the emblem of goodness, and can do no wrong; and Palmerston and Derby are the emblems of—(never mind what)—and if they do anything injurious to national honour, or national debt, out goes one and in comes the other—so with you, Pio IX. is the emblem of good, and if any of the measures of government are odious, it is on Antonelli and Mateucci that the blame is laid. It is true, they don't go out of office, but they would if the French were not there—the system is the same.

King National Debt is far more ubiquitous than the sun, for he sees everything always, by day and night. He sits supreme in the Cabinet and decides on peace or war. He inspects every merchant's ledger, and takes account of everybody's property. He is not above taking his share of the labouring man's pint of beer and pipe, though he sits down to drink champagne and smoke principees with the nobleman. His head-quarters are in the head of the Chancellor of the Exchequer; the other day he whispered to Mr. Gladstone, "Tax the charities." "I can't," said Mr. Gladstone, "the proposition would be considered odious." "Nonsense, man," said National Debt, "don't be such a baby; when Rarey wants to saddle a horse, he doesn't put it roughly on the horse's back, he shows it him, pats him, lets him smell it, rubs it against him, lays it gently on his back and takes it off, till he has a chance to tighten the girth. Now, you go down to the house, pretend as much modesty as you please, but make out a case against the charities; they are badly managed; the poor, for whom they are given, are defrauded, and the rich take the money; besides, I am robbed. If a man leave his money to his relations, or to Smith, Jones, or Robinson, I get a share, but by giving what he can't keep to a charity, I am defrauded. Go and propose the measure, '*ce n'est que le premier pas qui coute*,' it will be rejected to-day, never mind, by-and-bye it will be a question

whether tea shall be taxed 3d., or income 1d., or the charities; and then people will see that charity begins at home, and you will pass it."

"Most potent master," said Mr. Gladstone, "I obey."

Now you, gentlemen, have made over to National Debt full one-third of all your property, and two days' work in the week of all your labourers, and of all the Irish and Germans you import in future, and it is all, not only for your good, but for the good of mankind at large. The explosion must have taken place; it is violent enough, it would have been worse the longer put off; and if the boiler had burst in the direction of England, you would have done a great deal of mischief, not only to England, but to a number of rising colonies all over the world. "You have washed your dirty linen at home," as Napoleon I. says, "and in so doing you have washed out more spots in your national character than you are aware of. No longer will mobs or platforms control your Government, the National Debt platform will control all."

National Debt means an affluent, independent, and conservative upper class, and an obedient and orderly lower class; and it not only affects the mind, but the mind acts on the physiognomy; so that, when you have enjoyed that blessing for a few years, you will hardly know yourselves again in a looking-glass.

Gentlemen of the South; any government which upholds and guarantees the right of property of one man in the person of another, will be swept away by the rising tide of civilisation. That you had it from your fathers, the English, is true; but, as your fathers, the English, treated it a long time ago as a disorder requiring to be eradicated by the application of strong caustic, your defence of it on that ground is faulty. You have the right to oblige every citizen, black or white, to have a good education; and education brings a desire for the comforts and luxuries of life: and the man whose nature enables him to work in the sun will be glad to do it for a reasonable remuneration; that is fully proved in the East. It is true that you may not be able to amass such princely fortunes; but what avail those fortunes, if you are to live, as you now are, with a naked sword suspended by a hair over the heads of yourselves, your wives and children?

NOTICE RESPECTING THE DRAWINGS.

The ladies brought with them their own note paper, and frequently marked it.

In the earlier drawings, those in black, a pencil or crayon was put under the table.

This was discontinued as soon as coloured drawings began to appear.

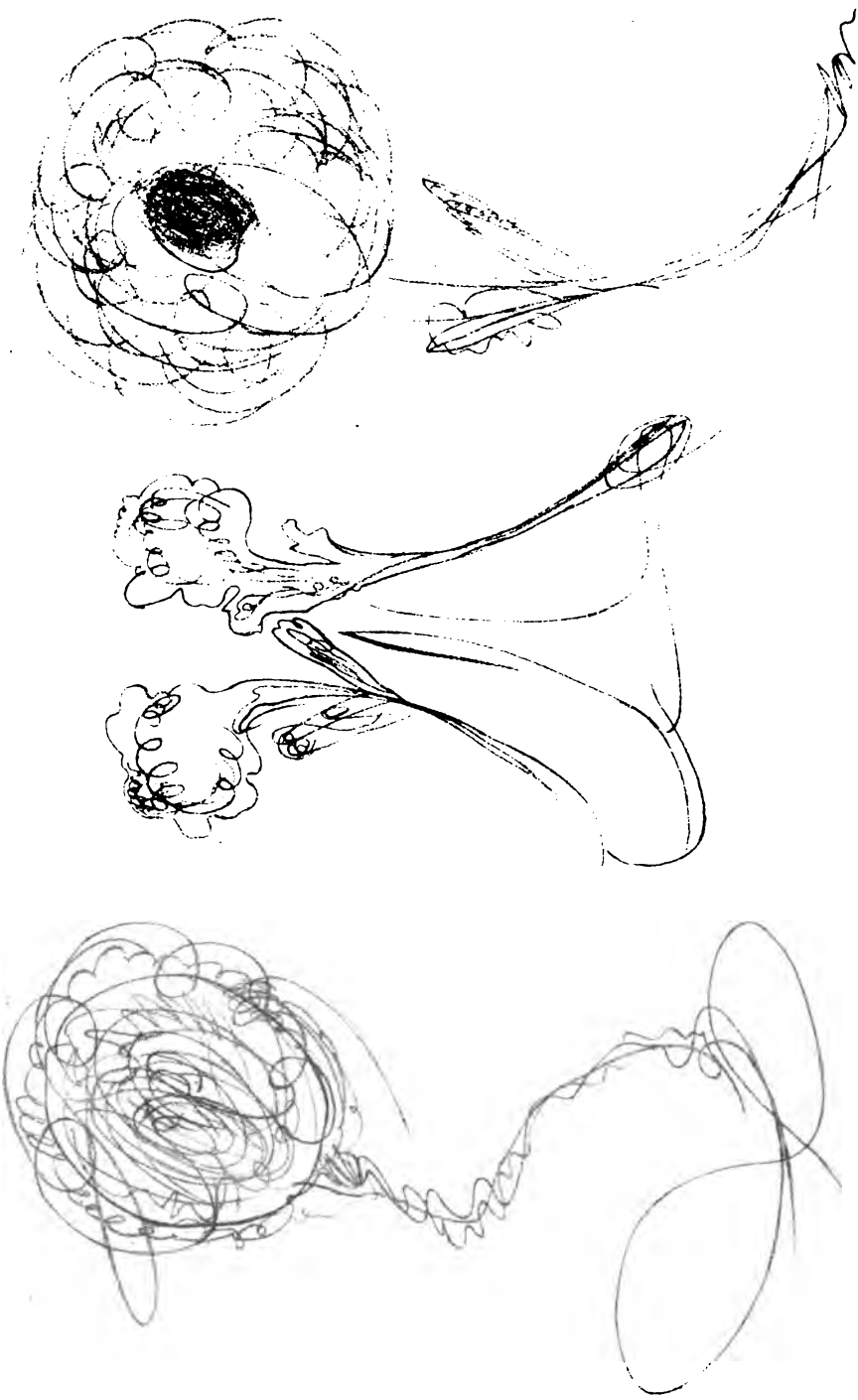
No colours nor pencils were then put under the table—nothing but the paper.

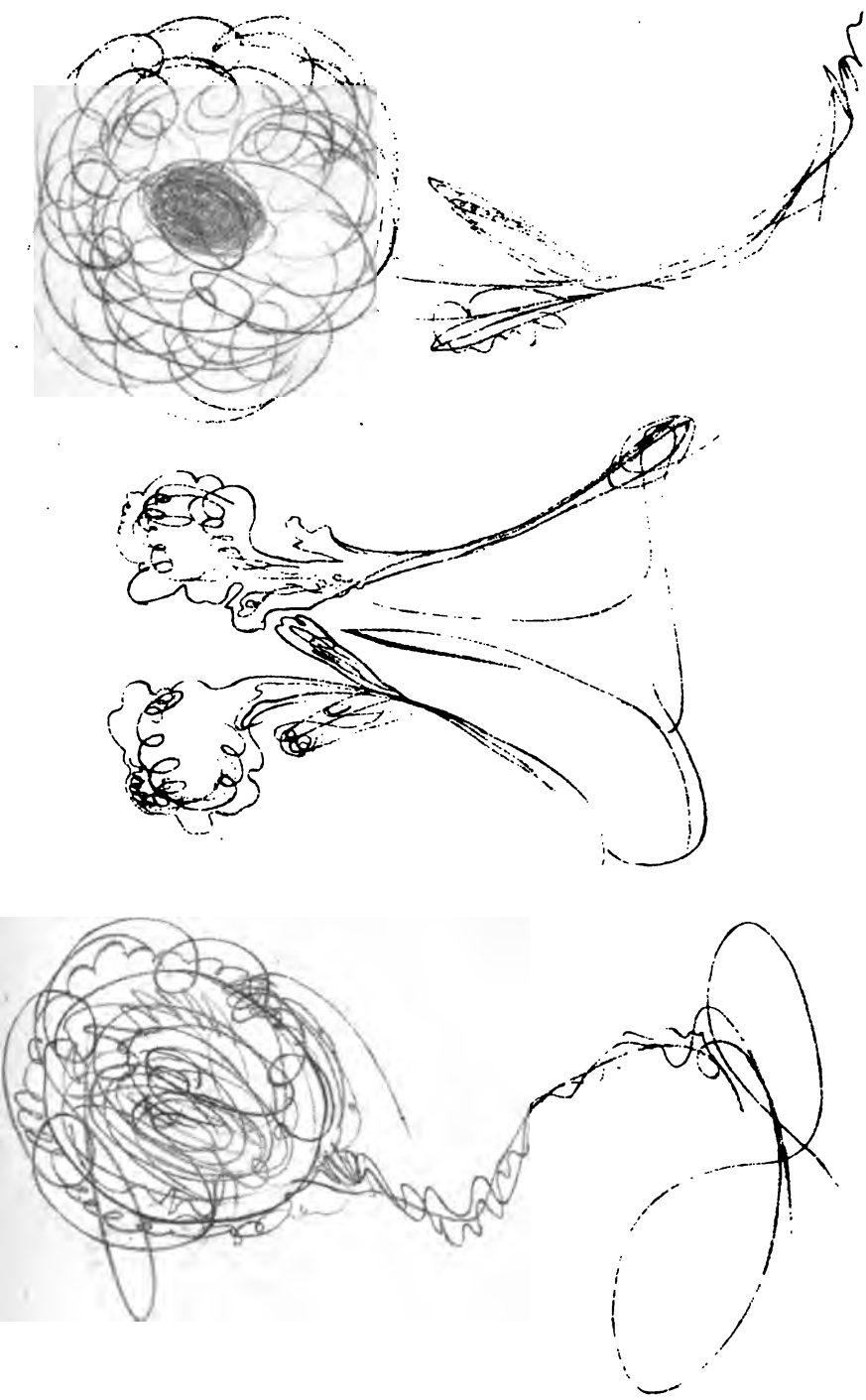
Sometimes the paper was put under the table at one o'clock, and a short séance held, and resumed at seven or eight o'clock.

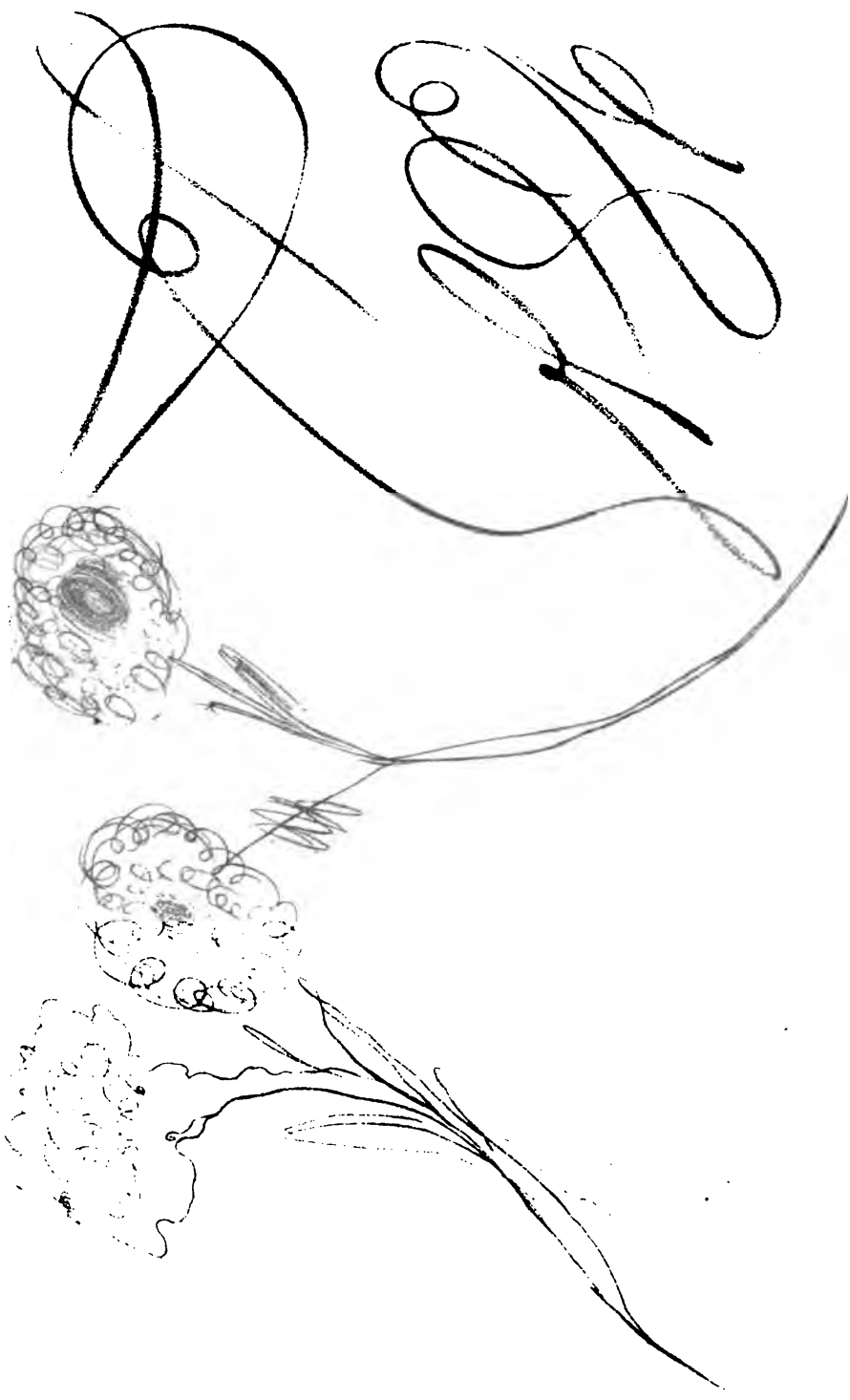
Sometimes some of the paper was put down at the evening service.

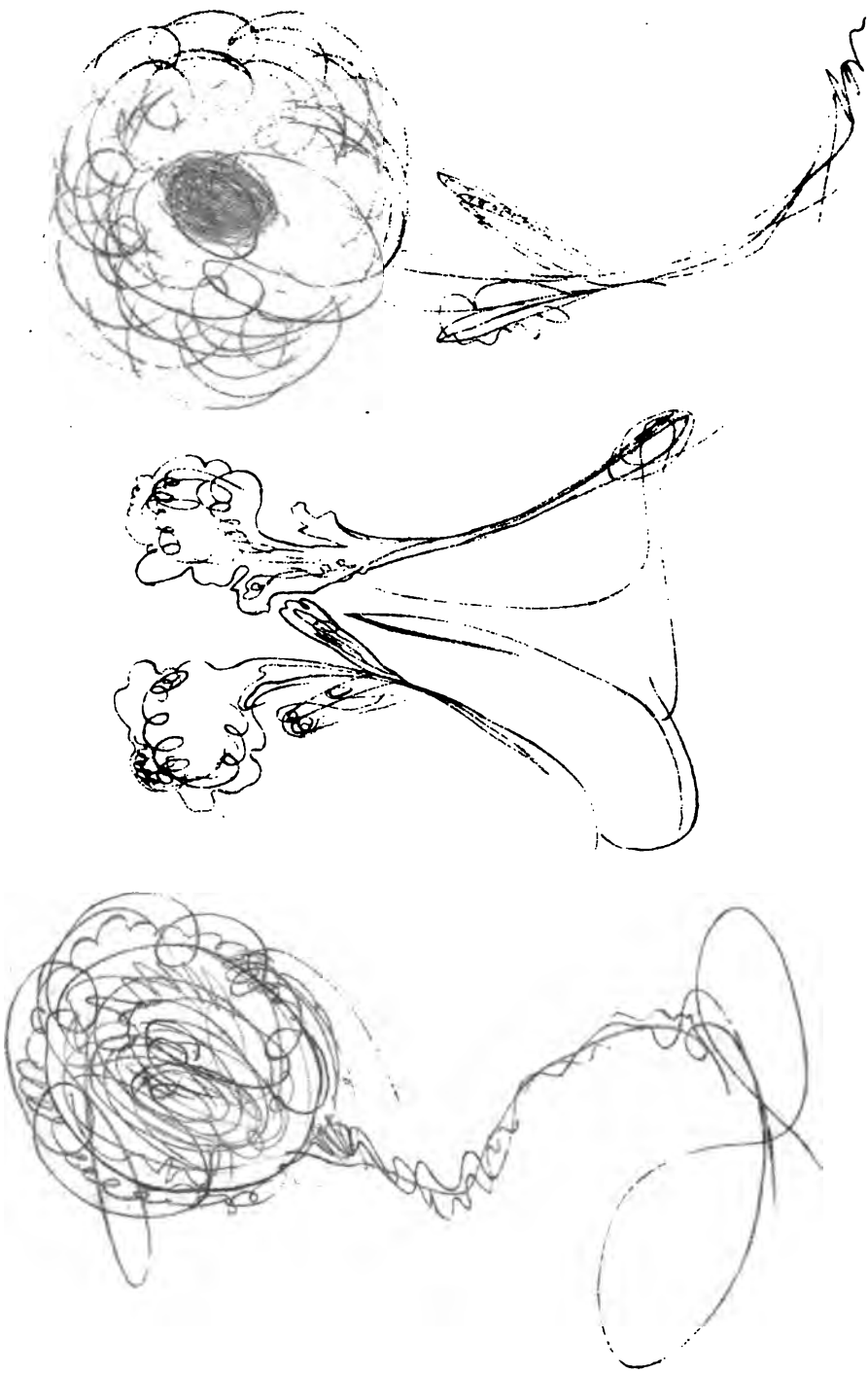
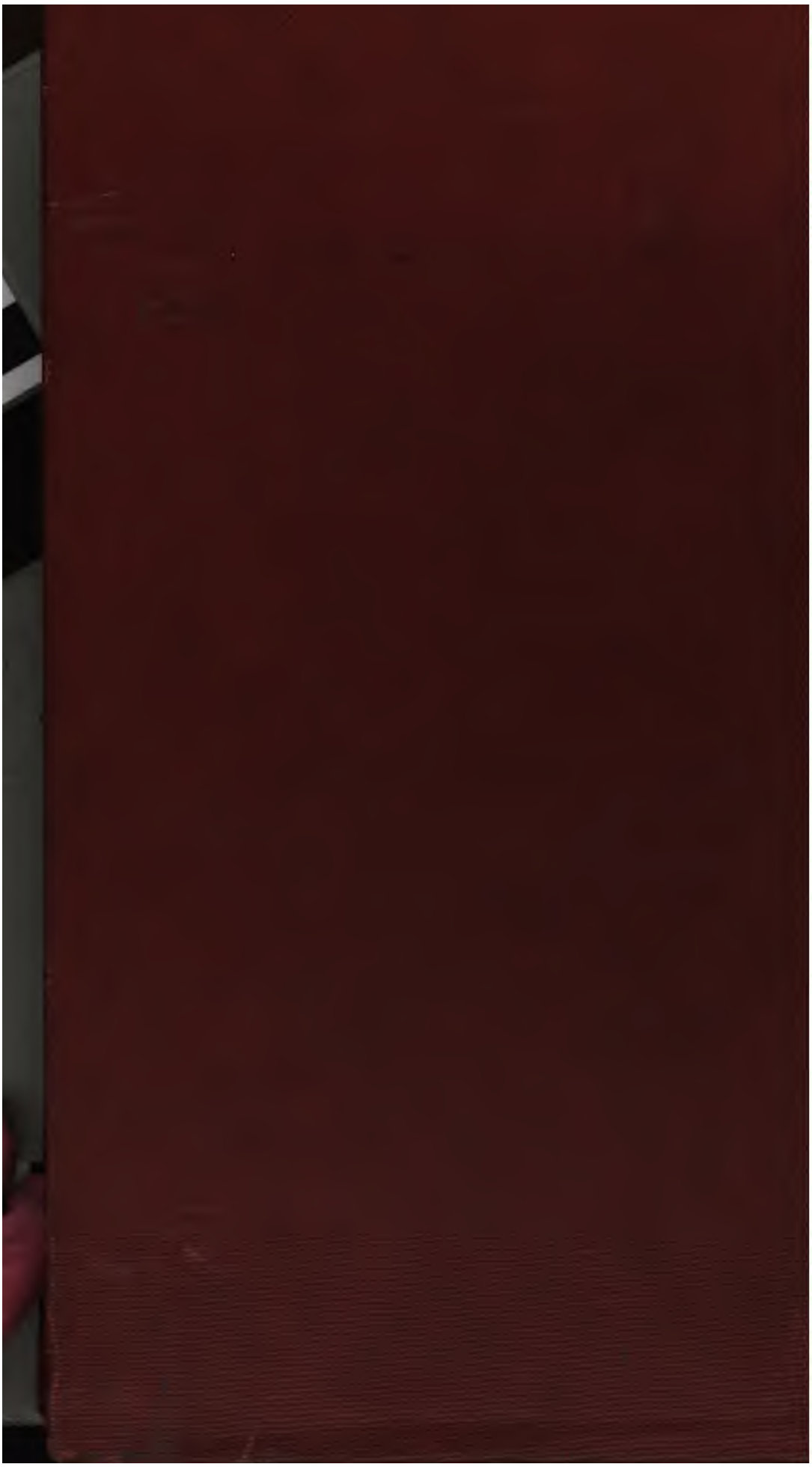
At about half-past ten, notice was given by the alphabet, "Look under the table"—and the drawings were found; sometimes two, sometimes six.

The drawings were single, each on a different sheet of note paper.





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